



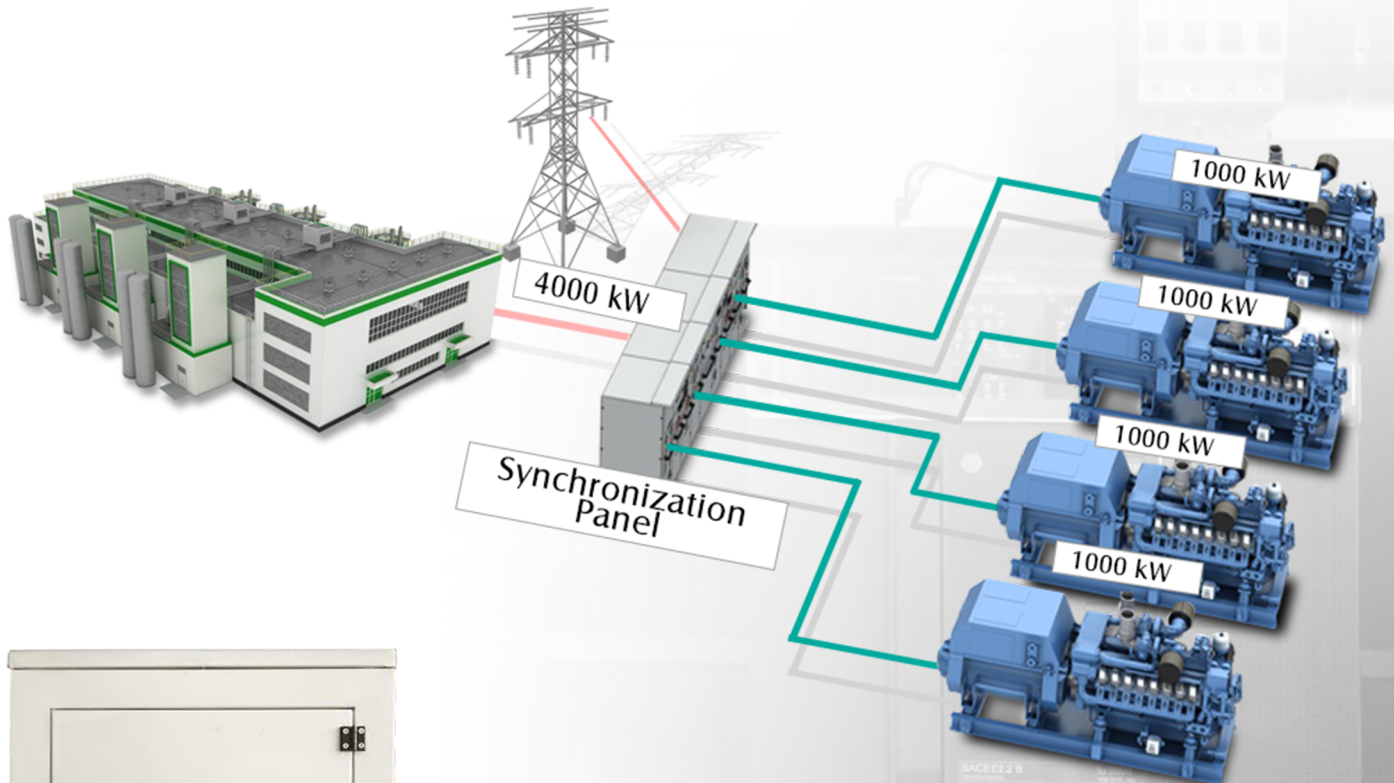
SYNCHRONIZATION SYSTEM



What is Synchronization?

Synchronization systems can simply be described as utilizing more than one generator set for your high kVA needs.

Small generator sets operating in parallel offers all beneficial advantages of a single large generator set.



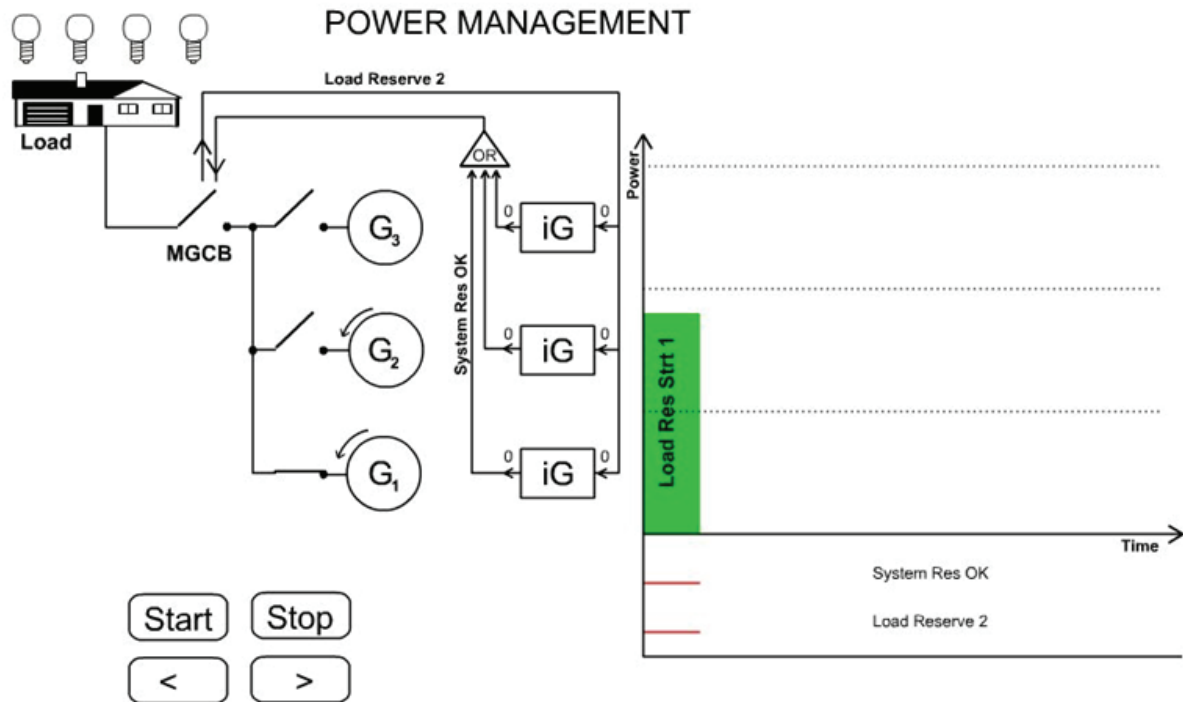
In the investments that predict a fast growth, purchasing a high power generator at establishment period increases the first investment budget. By preferring KZ Power synchronized systems you can start by purchasing lower power generator which decrease first investment budget. According with the growth rate you can add generator in various numbers and powers which establish a problem free, flexible system

KZ Power brings alternative solution to energy projects by using synchronization systems. With combining more than one generator for your high kVA needs, this system provides significant advantages comparing against single generator with same power. Especially the synchronization panel that design by Kz Power engineers offers integrated solution through costumers with its technology

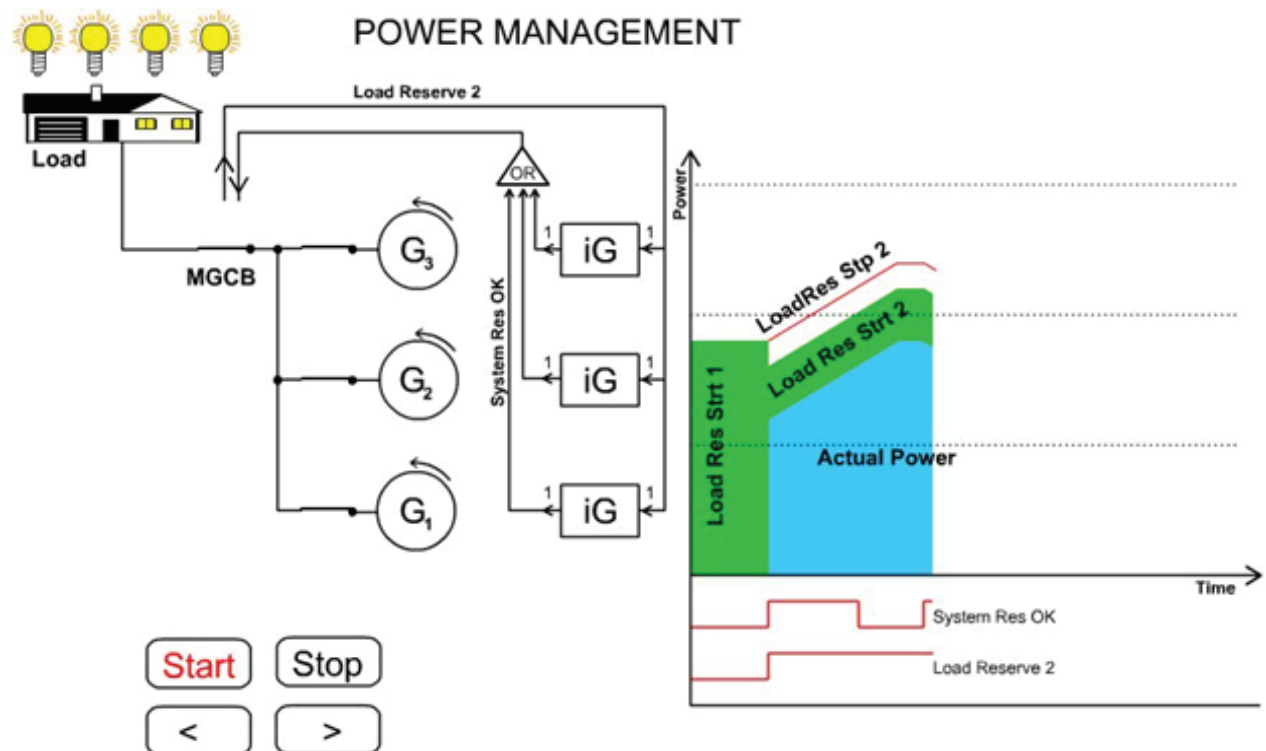


Simple Explanation of how does a Synchronization System work

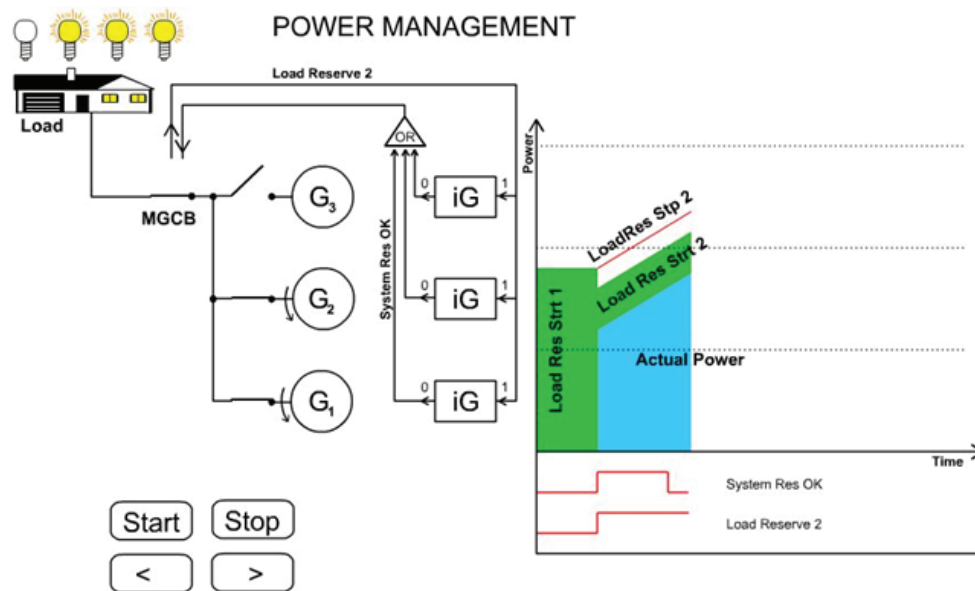
Phase 1: Generators start working together for load sharing, when a mains failure happens



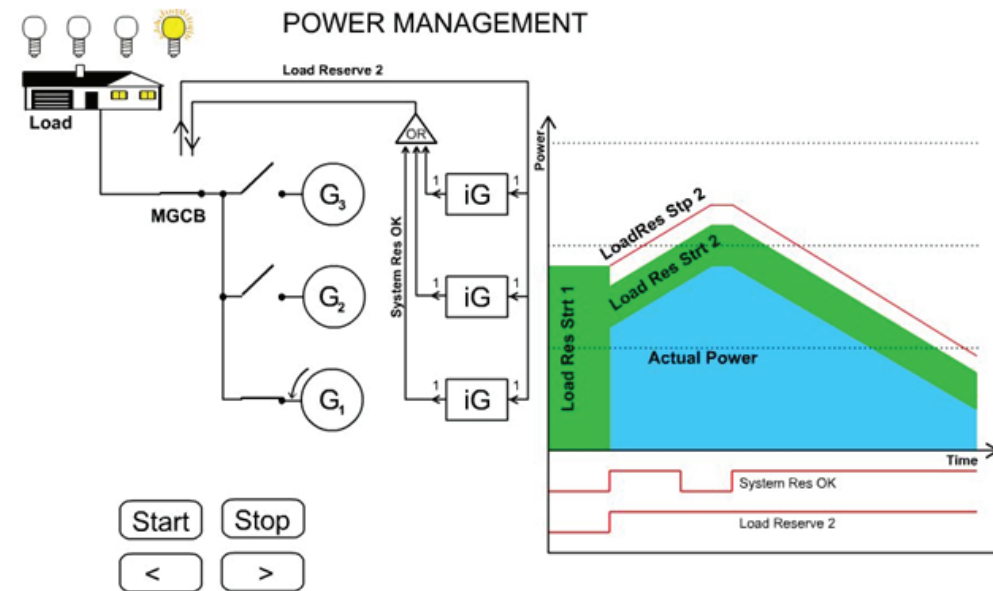
Phase 2: According to load demand, necessary number of generators keep working (in this case it is 2 generator sets)



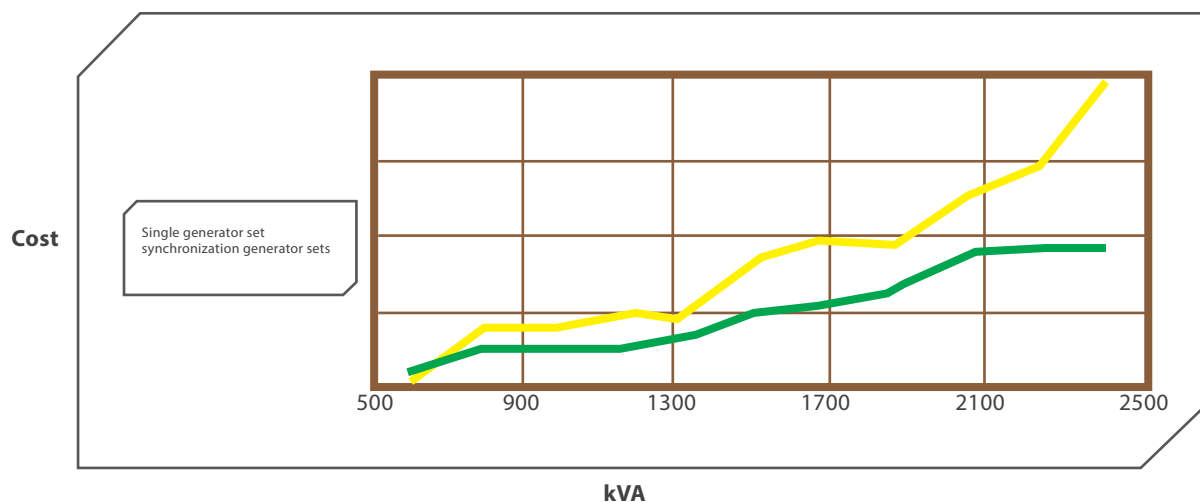
Phase 3 : Load demand increased. Now all three generators work together



Phase 4 : Load demand decreased greatly. Now only one generator works to fulfill the demand.



The system that is using small synchronization generators has much more advantages than using one high power generator



As you can see at above comparative cost graphic the synchronizing systems which gathered from different kVA models bring more advantages both in purchase and also in after sale.

We can approach to flexible usage of KZ Power Synchronization Systems from both logistic and functional point of view.

On the contrary of common belief synchronization systems can be synchronized not just in equal powered generators but also in different powered models. As a result of this application a flexible solution is created for changing power at different time of year or different time of day. In a hotel that needs intense power at summer time, is not also going to need same power at winter time. With the synchronization of different powered generators the intense power need of summer cover by high and small generator synchrony on the other hand you can use the lowered power single generator according to compensate the power for the off seasons. Thus fuel expenditures and corrosion are minimized.

In logical point of view, multiple generator systems create substantial advantages for difficulties about setting up systems against single large generator

ADVANTAGE OF SYNCHRONIZATION SYSTEM

More power at less cost with competitive price!

High powered engines mostly used for specific applications have high costs besides lower production volume. Low powered engines that are used in generator set applications find wide spread use in countless industrial applications. They are manufactured in big quantities that lower the costs.

Lower first investment budget & expandability considering future needs!

During the first establishment, you need to keep the cost low. According to the initial investment requirements, you can start with enough powered generator system. By preferring synchronization system, you can add generator sets as needed into your upgraded power system. KZ Power synchronization systems bring %15-%20 price advantages in first investment cost and also operational spending

Flexibility!

Two or more generator sets that have different power capacities can be utilized to provide daily, weekly and seasonal variations in loads.

Reliability & Redundancy!

If a generator set fails to come on line, backup power from one or more synchronized generator sets supplies the critical load.

Convenience of service & maintenance!

High powered diesel generator sets are technically more advanced, which means it is more difficult to repair. Where multiple generator sets are available, individual units can be taken out of service for repair or maintenance easily without losing power for critical loads.

Convenience of delivery & supply of spare parts!

High powered engines have much longer delivery times because they are manufactured only by special order in limited suppliers. Also high powered engine spare parts could be difficult to find in the market.

Lifespan of the Generators

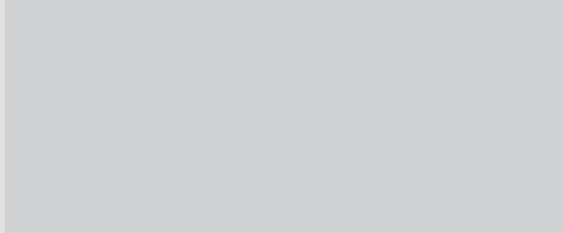
In a synchronization systems muster generator (generator that runs even there is low load demand) changes every time system stars. Thus allowed to the generators not share only the load but share running hours as well. Therefore lifetime of the generators is much longer than single running big sized generators.

KZ POWER Professionalizm!

Taking advantages of her expert project team, innovative research and development services and technical expertise.

KZ POWER offers integrated solution through customer with its technology.

Distributed By



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