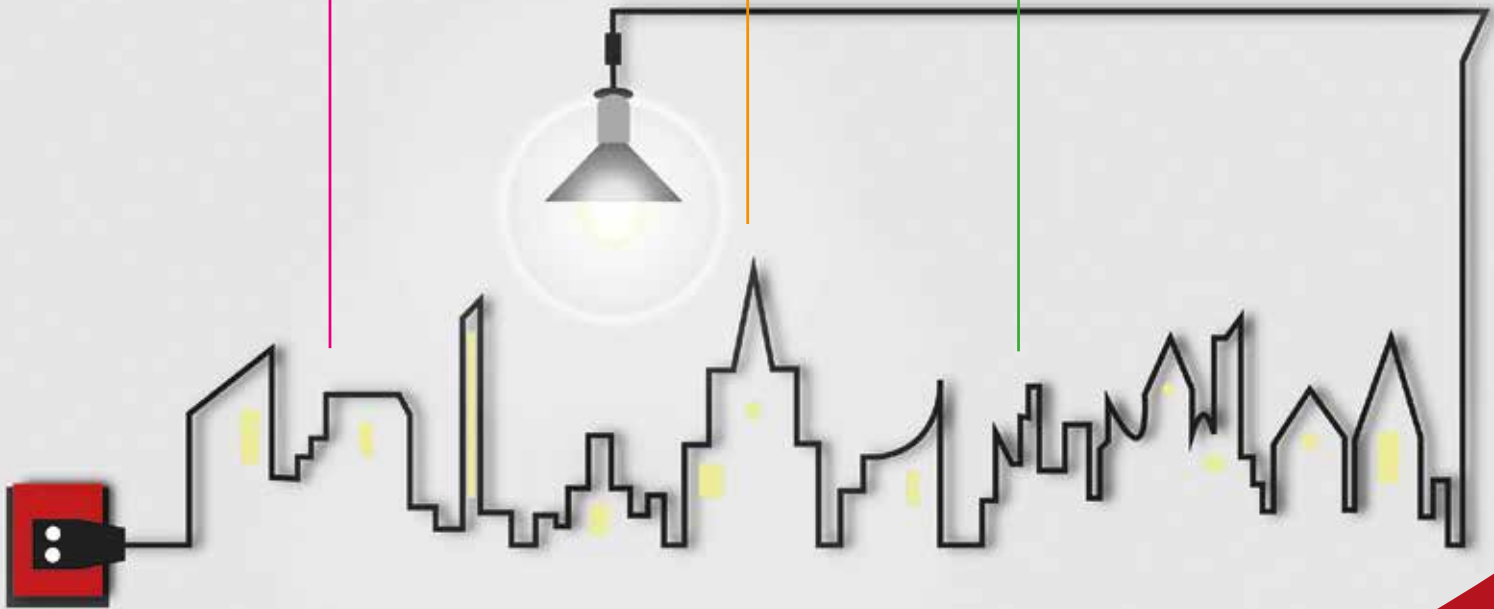




CRITICAL INFRASTRUCTURES



FREERK

■ **INDIVIDUAL** ■ **RELIABLE** ■ **EFFICIENT**
YOUR PARTNERSHIP FOR POWER SOLUTIONS



PLANT SYSTEMS FOR CRITICAL INFRASTRUCTURES

Solutions tailored for any event

When things become critical quickly without electricity

Hospitals, airports and computer centres, sensitive technical and chemical plants or nuclear power plants – for modern society, it is vital to guarantee the functioning of these critical infrastructures: Safe power supply is key because even short-term failures or voltage fluctuations may cause fatal consequences here.

As a result, legislation has made it imperative to install emergency power supply in critical infrastructures, such as in hospitals. Besides the central security aspect and the legal provisions, there are also economic arguments in favour of an emergency power system: Power outages and voltage fluctuations may cause both severe damage to modern high-tech components and costly repairs and costly downtime during operation. Additionally, in providing a modern power system you reduce the corporate liability risks and demonstrate to your business partners your safety, reliability and responsibility.

FRERK. To be on the safe side.

As an experienced global player, FRERK offers power plants especially for critical infrastructures in a power range from 0.2 MW to 10 MW in the low and medium voltage range. Here, we cover both Emergency Diesel Generator Set and as well as uninterruptible power supply (UPS).

Since all of our systems comply with national and international standards as well as legal provisions you can be sure to be on the safe side in the event of short-term failures, voltage fluctuations or power outages.



You can rely on it

Quality and made-to-measure products

The place, its environmental conditions, legal requirements, and special features: Each project comes with their individual specifics, its own characteristics and its own demands as to emergency power supply. The FRERK professionals therefore design your individually tailored system and create solutions that are optimally adapted to your wishes and project requirements. With more than five decades of technical expertise, the dedicated FRERK team provides comprehensive installations: Choose between a containerised solution and a turn-key built-in installation.

Perfect know-how, perfect fit

When it comes to sizing your system optimally, simply rely on the expertise of FRERK design engineers. Since they are well-versed in selecting e.g. the most suited model of diesel engines from a wide range of makes and models FRERK matches all components to each other precisely – in terms of size, performance and cost. That is how we arrange to give our systems the most appealing ratio between cost-benefit effect for our customers and critical load.

Even in tight space, you can fully rely on FRERK's creative expertise. Especially for critical infrastructures, we offer very compact designed systems that fit in perfectly even in the most constraint space.

Being well prepared

A power outage occurs all of a sudden. In the event of an emergency, your backup power system will take up work instantly and self-reliantly. To make sure that you are well prepared at any time and under all circumstances we put it through its paces in the most rigorous and pressurised testing a machine can be subjected to: This includes extensive testing of all control functions with different load facilities and customer-specific environmental conditions.

Technical design at FRERK: everything considered

Professional design engineering for your plant

From sound insulation, sound attenuation and fire protection and spatial arrangement: When designing the energy supply of critical infrastructure particular demands have to be taken into account. FRERK's team of experienced, highly-qualified technicians, electrical engineers and engineers applies state-of-the-art engineering methods to develop intelligent solutions that consider every relevant aspect.

High sound attenuation included

For reasons of noise protection, especially high demands are to be met as to sound attenuation in residential areas and at hospitals. Choosing the right material and configuration in advance means reducing noise emissions significantly right from the start.

Strong performance at load transfer and stand-by supply

For matching your device best to your requirements, we offer different types of operating philosophies, including a closed start-up synchronisation. FRERK achieves an increased load transfer to the generator not only by selecting carefully electrical components and designing precisely but also mechanically by installing cooling water preheating systems.

Better safe than sorry: Two is better than one

For maximum operational reliability in the event of an emergency, FRERK develops in collaboration with technical consultants the necessary failure protection systems: redundancy. Because two is better than one.

Mechanical and electrical components and equipment provide redundancy, designed for your safety. The failure protection system is tested thoroughly in our test field for fault types, consistent high quality and maximum reliability.

When space is in short supply

Not only in hospitals or data centres the space available for backup power is often very limited. Whether deep down in the basement or on the rooftop, our engineers always find ways to accommodate a power systems in the facility, yet achieving full performance. Thanks to state of the art 3D modelling, we design power systems to fit in perfectly even in the most constraint space.



Perfectly configured for your success

Good planning for best results

With more than 50 years of experience in planning and implementing energy supply systems for critical infrastructures, FRERK is proud to be able to introduce you to a wide range of different realisation possibilities. In order to always achieve best results, FRERK puts great emphasis on careful and detailed individual planning. At the early stage of planning, based on your data we analyse the initial situation, requirements, environmental conditions, cost plan as well as legal provisions and technical requirements. With this profound knowledge, we suggest energy supply solutions that are optimally tailored to your needs.

Independent with fixed partners

Power supply systems are complex yet contain components that work together harmonically. Nevertheless, you are free to choose any make to be applied to your power supply system for we work manufacturer-independent. This full freedom of choice allows us to always help you select the most suited components and to take into account your special wishes. At the same time, with our network of strong partners and permanent suppliers we cover all areas and are happy to guarantee both quality and on-time delivery.

Highest security for critical infrastructures

Our strengths - your advantages

At FRERK, we combine decades of experience in power plant construction with state-of-the-art know-how, modern technical methods and solid handicraft. FRERK is proud of their efficient quality management, certified according to ISO 9001-2015, as well as their effective system for rating suppliers. To ensure the highest level of safety, FRERK has comprehensive test facilities, including diesel and gas generators with low and medium voltage in accordance with ISO 8528.

Our single-source service, your reliable partner

From comprehensive planning and consultation, through production, factory testing and installation to strong after-sales services - FRERK offers well thought-out complete solutions from a single source. This includes the relevant plant-specific trades such as:

- Aggregate control or plant control and central control (e.g. redundantly)
- Low-voltage switchgears and medium-voltage switchgears, if required with transformer
- Fuel supply and cleaning
- Uninterruptible Power Supply (UPS) Solutions
- Ventilation system and sound insulation technology
- Exhaust gas systems
- Vibration isolation
- Fire alarms, fire extinguishing systems and much more



Frerk Aggregatebau GmbH
Industriestraße 1 A
27333 Schweringen, Germany



Tel. +49 (0) 4257 9300 0
Fax +49 (0) 4257 66 6



info@ferk-aggregatebau.com
www.ferk-aggregatebau.com

