

DG System

The combination of diesel engine with an electric generator to generate electrical energy

Requirements:

- Industrial backup
- Emergency
- Electrical system in case of power failure

DG set as a system:

A diesel generating set should be considered as a system since it's successful operation depends on the well-matched performance of the components, namely-

- The diesel engine and its accessories
- The AC generator
- The control system and switch gear
- The foundation and power house civil works
- The connected load with its own components like heating, motor drives, lighting etc.

It is necessary to select the components with higher efficiency and operate them at their optimum efficiency level to conserve energy in this system.

Factors effecting selection of DG system:

There are live important factors to consider when choosing a diesel generator, ensuring the right capacity for the applications, it's modularity potential. The type of control system it uses, it's fuel efficiency and autonomy, finally its physical size and logistical operation.

1. Size
2. Modular capacity
3. Control system and management
4. Fuel efficiency and autonomy
5. Physical size and transportation