Diesel Generator (D.G) Set Insurance

Diesel Generator sets are used in case of power cuts or grid failures and in places that have no electric connection. DG Sets have also emerged as the best alternative for standby and emergency power generation. Therefore, almost all industries have and use D.G. Sets.

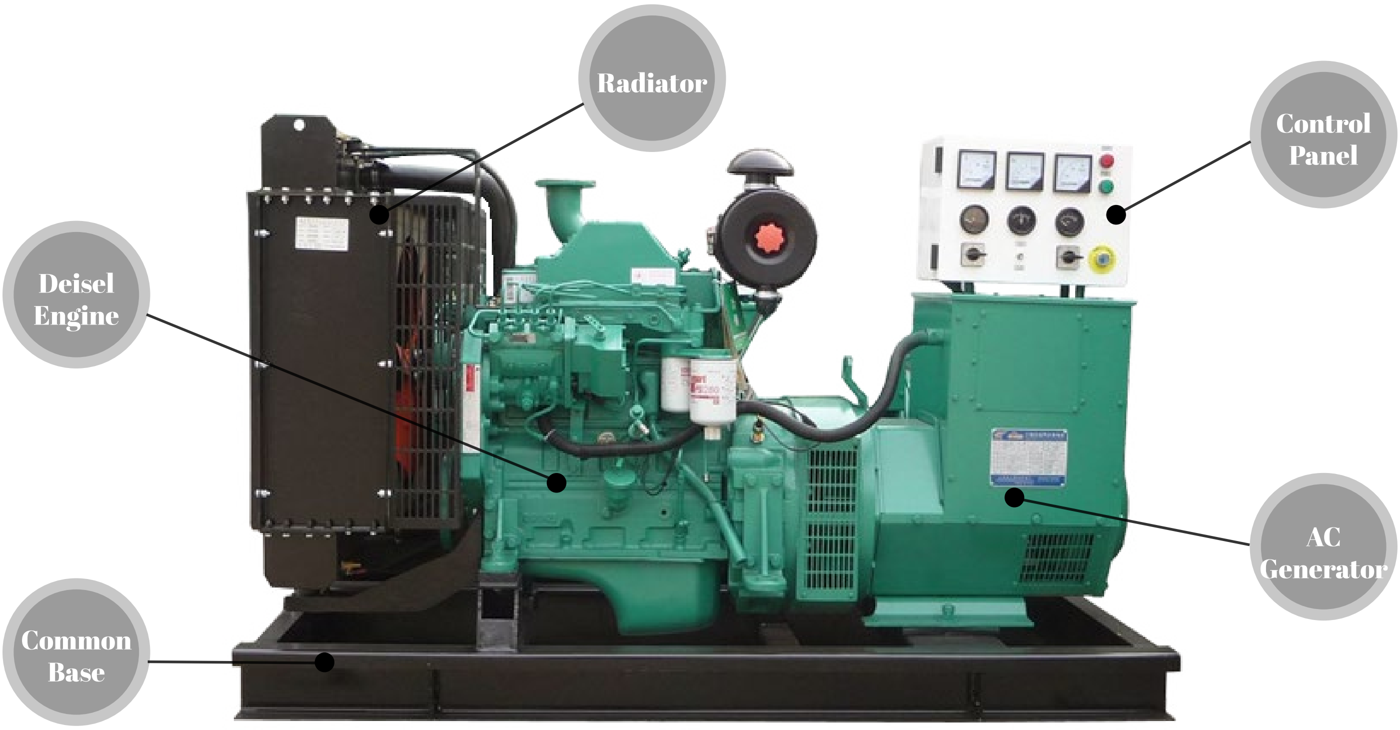
In this section, we will discuss composition & working of D.G. Set, how to insure them, select the proper sum insured and precautions to be taken before taking an insurance policy.

Composition & Working of a D.G. set

D.G. Set is a combination of a Diesel Engine with AC generator (often called an alternator) to generate electricity.

A D.G. Set generally comprises following assemblies:	
Diesel Engine	Diesel Engine is an internal combustion engine in which heat is converted to mechanical energy through the piston and crankshaft setup.
AC Generator (Alternator)	The alternator is an electrical generator that converts mechanical energy into electrical energy in the form of alternating current.
Control Panel Incl. Cable between Alternator & Control Panel	The Control Panel distributes the electrical output of the diesel generator set to user's electric equipment.
Acoustic Enclosure (Canopy)	The complete D.G. Set is kept in an Acoustic Enclosure (also called Sound Proof Canopy) to minimize and muffle the noise of D.G. Set

Depending upon the size of the D.G. Set a radiator or a cooling tower is attached to keep the engine cool. Radiator is always a part of the Diesel Engine assembly can't be insured in isolation, whereas the Cooling Towers attached to Engines can be covered separately.



D.G. Set in Acoustic Enclosure (Sound Proof Canopy)

Cooling Tower

Insuring a D.G. Set

The D.G. Set can be covered in the Machinery Breakdown Insurance:

- Either as one machine comprising Diesel Engine, A.C. Generator, Control Panel, Cable and the Acoustic Enclosure
- Or the following assemblies can be insured separately:
    - Diesel Engine (Prime Mover)
    - A.C. Generator (Alternator)
    - Control Panel incl. Cable
    - Acoustic Enclosures

No further break-up of the components is allowed.

As there is no scope of breakdown in an Acoustic Enclosure Canopy, it may not be insured. However as it can suffer damage from the spread of a fire generated inside the engine or alternator or explosion inside, it should be covered under Standard Fire & Special Peril Policy.

How to Select the Sum Insured

The Sum Insured should be equal to the new replacement value, i.e. cost of replacement of the insured property by new property of the same kind and same capacity. The replacement cost declared should be inclusive of taxes & duties, freight/delivery cost at site, erection cost etc.

How to Insure D.G. Set

The first option is to insure the complete D.G. Set as one machine. The second option is to take the Sum Insured of Diesel Engine, AC Generator (Alternator), Control Panel incl. Cable, Acoustic Enclosure separately.

Although the first option is simpler, it has a drawback. As the deductible is a percentage of the Sum Insured of the machine, by choosing this option small value claims particularly of Alternator Stator &/or Rotor rewinding, Exciter Stator & Rotor, AVR, Bearings and Parts of Control Panel will be washed away or drastically reduced. e.g. in the event of damage to the engine, the claim of engine components will stand reduced because the deductible will be based on the total value of the machine including the Alternator & Control Panel.

So, it is advised to insure the D.G. Set as a collection of the following assemblies:

• Diesel Engine, • AC Generator (Alternator), • Control Panel incl. Cable *

* *Sometimes Control Panels are installed at a distant place then cable can also be covered separately.*

Basis of Claim Settlement

PARTIAL LOSS

In cases where damage to an insured item can be repaired, the Company will pay expenses necessarily incurred to restore the damaged machine to its former state as it was before the loss plus the cost of dismantling and re-erection, ordinary freight to and from a repair shop, customs duties if any to the extent such expenses have been included in the Sum Insured.

No deduction shall be made for depreciation in respect of parts replaced except for

- Parts which normally sustain wear and tear and
- Parts for which manufacturers have specified a fixed life for use and the like.

If the cost of repairs as detailed hereinabove equals or exceeds the actual value of the machinery insured immediately before the occurrence of the damage the settlement shall be made on Total Loss.

TOTAL LOSS

In cases where an insured item is destroyed, the Company will pay the actual value of the item immediately before the occurrence of the loss including costs for ordinary freight erection and customs duties if any, provided such expenses have been included in the sum insured, such actual value to be calculated by deducting proper depreciation from the replacement value of the item.

If the Sum Insured is less than the amount required to be insured, the Company will pay only in such proportion as the Sum Insured bears to the amount required to be insured.

The Company will make payments only after being satisfied, with the necessary bills and documents that the repairs/ replacements have been executed.

The company may not insist for bills and documents in case of total loss where the Insured is unable to replace the damaged equipment for reasons beyond their control.

Precautions To Be Taken During Taking the Policy To Avoid Problems at the Time of Claim

- If you want to take coverage of frame, foundation & masonry from unforeseen and sudden physical loss or damage, it must be covered specifically and it's Sum Insured should be declared separately.

- Log Book of D.G. Set is to be maintained to prove that the loss has not been caused by wear & tear.

- Major overhaul & breakdown repairs to be recorded in the Log Book to get the benefit of reduced depreciation thereafter.

- The cost of complete DG Set is always less than the collective individual cost of Diesel Engine, Alternator, Control Panel & cable and Acoustic Enclosure.

  If you are opting for the separate sum insured of Diesel Engine, Alternator, Control Panel & Cable and Acoustic Enclosure then you must take the individual value of the item and not as a composite value of DG Set. This is an essential exercise to avoid average clause/ under insurance clause at the time of claim.

- Discounts and special price agreements upon purchase of the items to be insured should not be taken into consideration when determining the Sum Insured because after the loss such discounts may not be available.

- Under-insurance should be avoided; otherwise claims for repairs or replacements will be paid only in the proportion which the Sum Insured bears to the current new replacement value.