



## OBJECT

To understand the protection schemes of an alternator.

The following types of protections should be studied and performed:-

- ❖ Over load protection.
- ❖ Excitation failure protection
- ❖ Prime mover failure protection
- ❖ Earth fault protection
- ❖ Unbalanced load protection
- ❖ Under/Over voltage protection

## SPECIFICATION

MG Set : DC Shunt/Compound Motor couple with three phase alternator.

### DC SHUNT/COMPOUND MOTOR:

Type : DC Motor, shunt wound, self excited, screen protected, horizontal foot mounted, fan cooled.

Capacity : 1 to 10 HP

Winding : Shunt wound

R.P.M : 1500

Volts : 230  $\pm 5\%$

Insulation : Class 'B'

Connections : All the terminals of armature and shunt field shall be brought over to bakelite sheet, fixed to C.I. terminal box, fitted on top of Motor.

### ALTERNATOR:

Type : Three phase salient pole, screen protected, horizontal foot mounted, fan cooled.

Capacity : 1 to 10 KVA

Winding : Three phase lap wound

R.P.M : 1500

Volts : 440  $\pm 5\%$

Insulation : Class 'B'

Connections : All the terminals of armature and field shall be brought over to bakelite sheet, fixed to C.I. terminal box, fitted on top of Alternator.

Both the machines are flexibly coupled and mounted on sturdy m.s. channel base.

**All the rotor of our machines are dynamically balanced on Microprocessor based balancing machine.**

**Note:** The specifications/layout drawings of control panel and MG Set are suggestive only and can be modified as per latest design consideration and can be tailor-made as per customers specifications.

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