

Grounding:

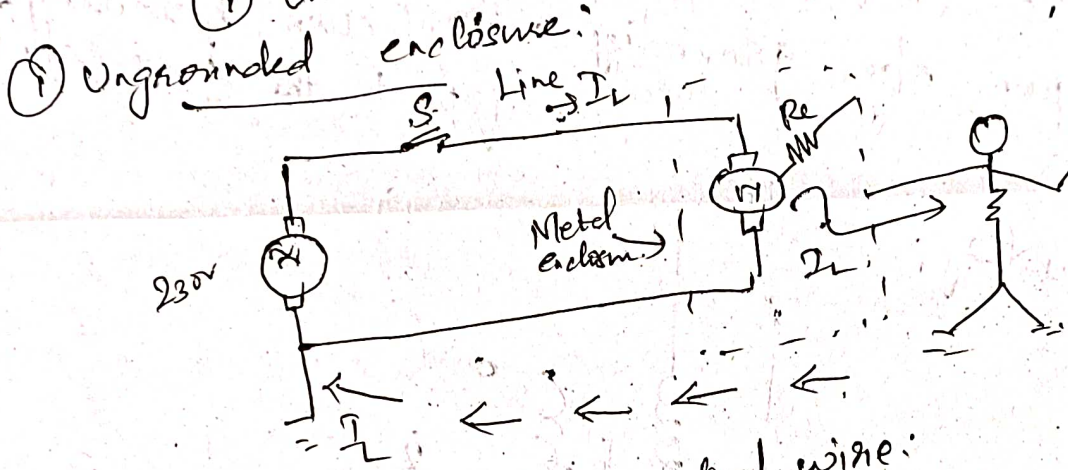
The process of connecting the metallic frame of electrical equipment or some electrical part of the s/m to earth is called grounding.

Equipment Grounding
s/m Grounding.

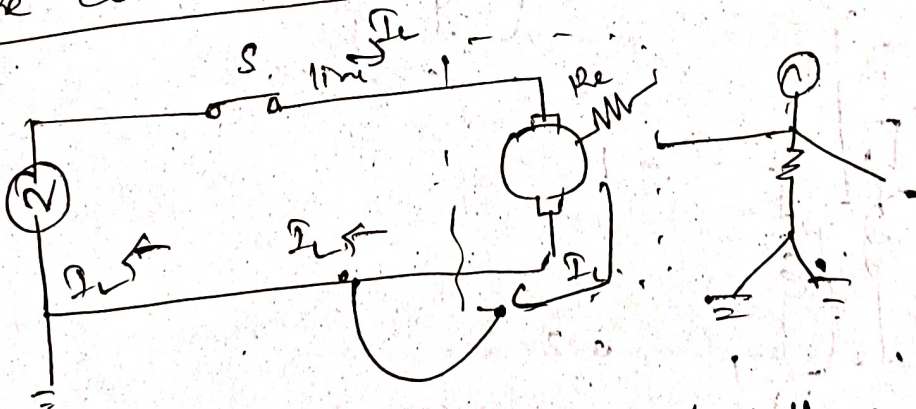
Equipment:

The process of connecting the metallic parts of the electrical equip to earth in such a way that in case of insulator failure, the enclosure effectively remains at earth potential is called equipment grounding.

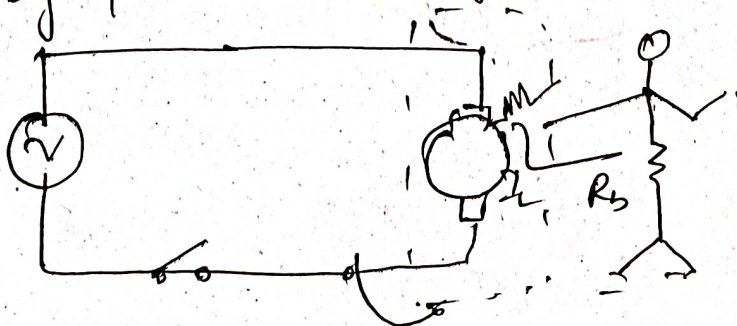
(1) Ungrounded enclosure:



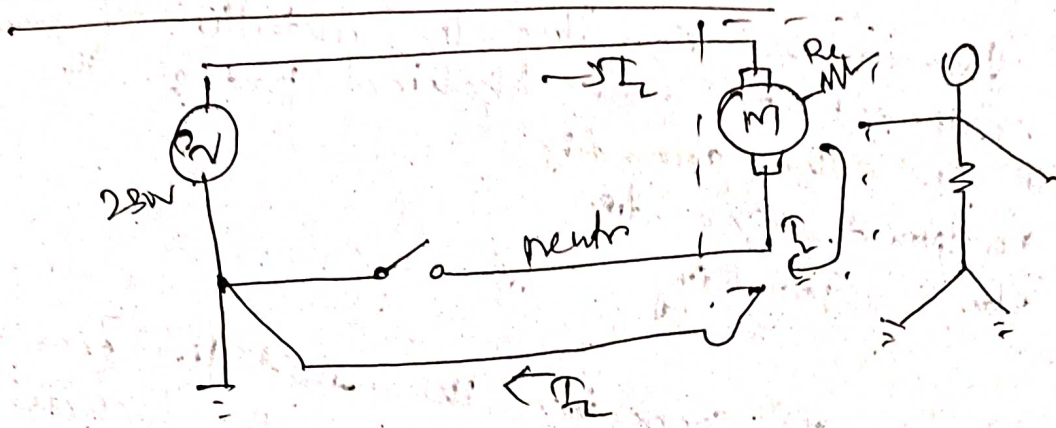
(2) Enclosure connected to neutral wire:



Problem:
Neutral wire may open accidentally or due to faulty installation.



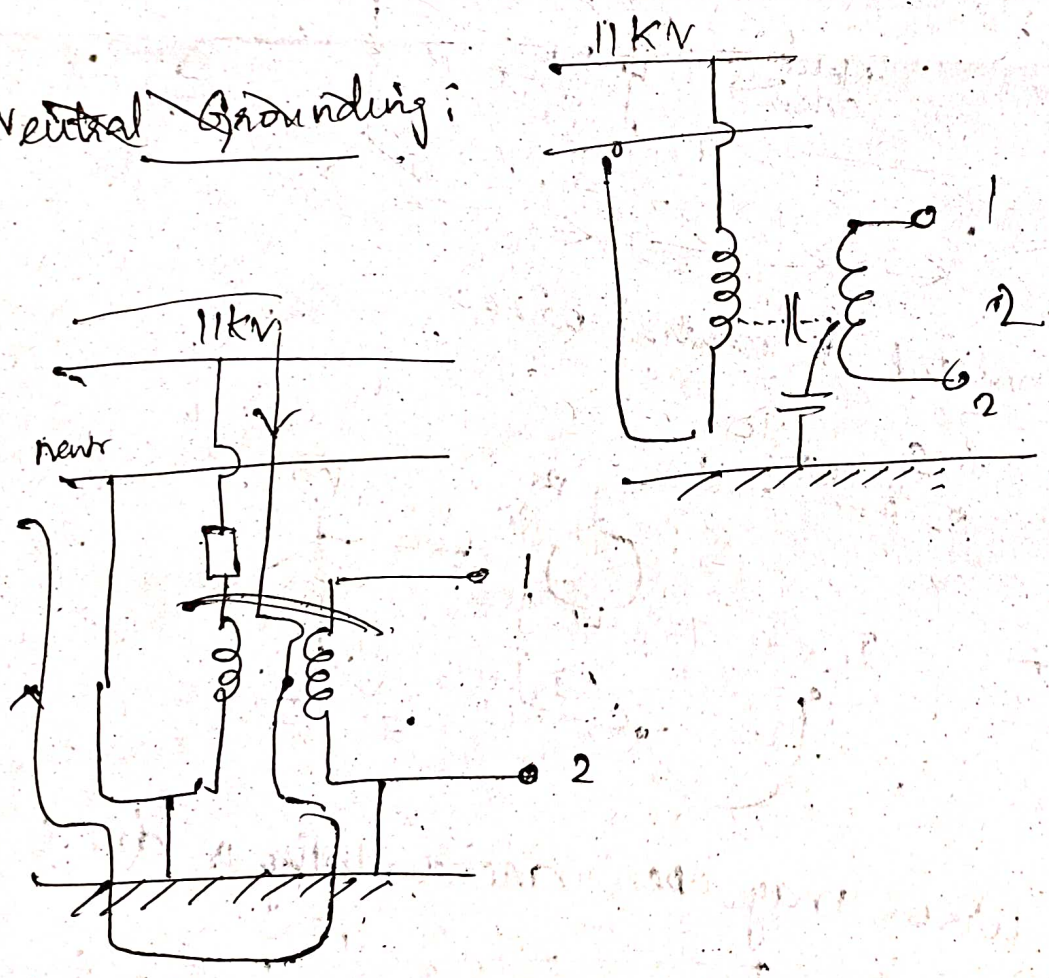
Ground wire connected to enclosure :-



System Grounding :-

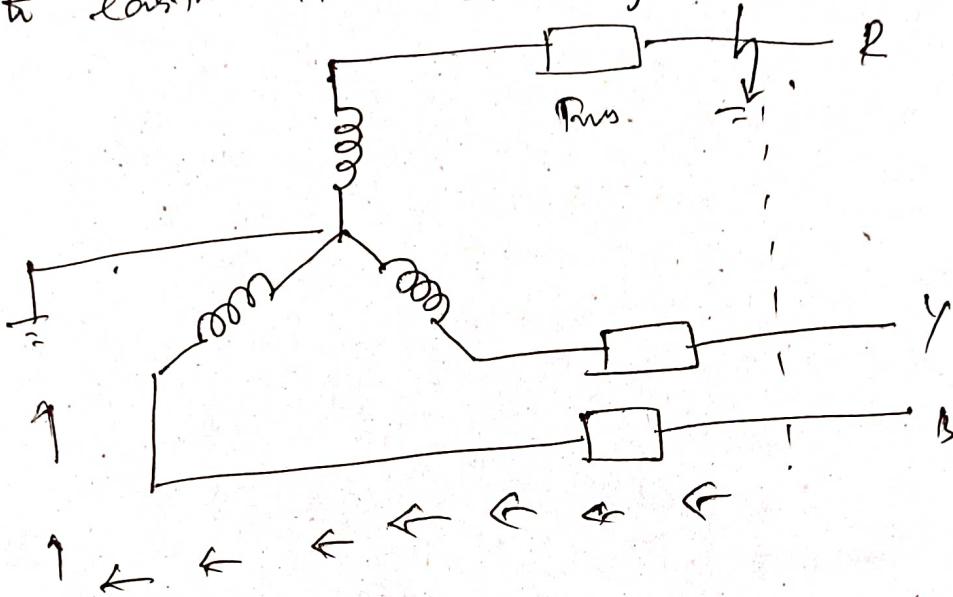
The process of connecting some electrical part of the power system (eg. neutral pt of a star-connected s/m, one conductor of the secondary of a t/f) to earth is called s/m grounding. By proper s/m grounding \rightarrow protection, reliability & safety to the power s/m n/w.

Neutral Grounding :-



Neutral grounding:

The process of connecting neutral pt of 3-ph s/m to earth either directly or through some ckt.



Advantages:-

- It provides greater safety to personnel & equipment
- It provides improved service reliability
- operating & maintenance expenditures are reduced.