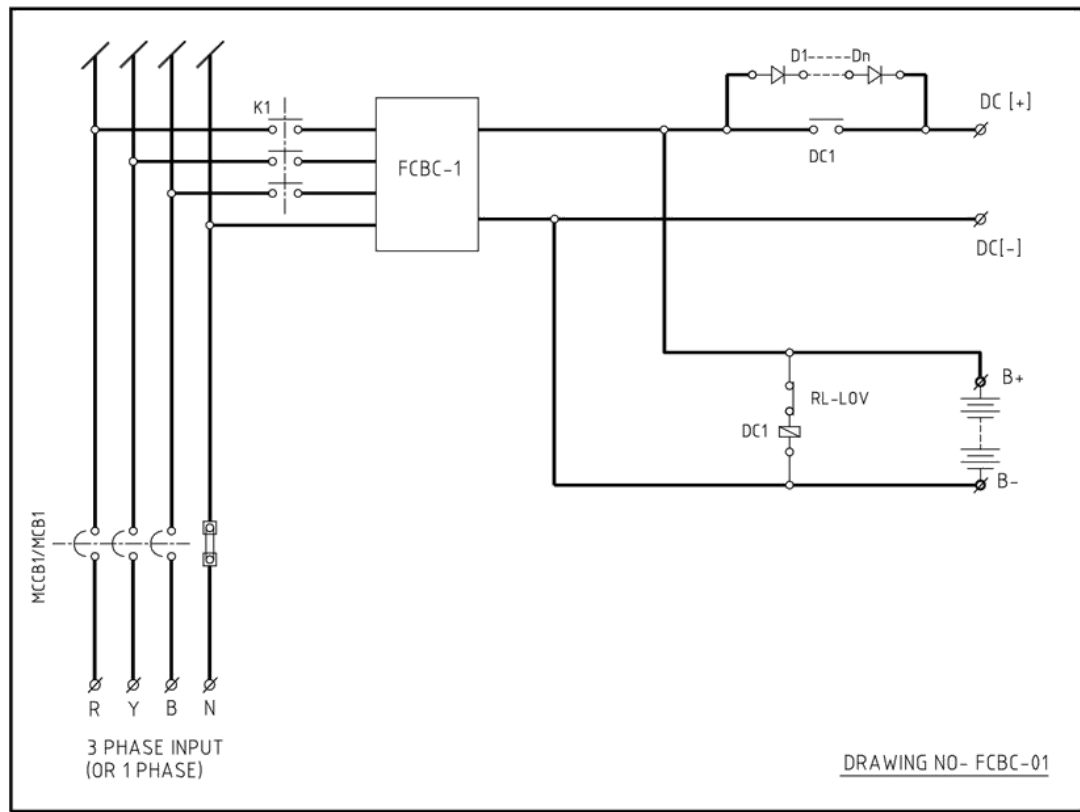




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- Normally charger feeds the load at constant voltage (CV) and trickle charges the battery. DC contactor DC1 is normally energised to provide a shorted path across series dropper diode network D1.....Dn. This mode of operation is known as "FLOAT" mode of operation.
- During power failure battery feeds the load without any break since battery is floating parallelly across the load. At this stage also DC1 remains closed.
- When power comes back normal operation resumes. That is system goes back to "Float mode".
- But, if battery is drained out heavily then it is necessary to restore the discharged battery quickly. That is "BOOST" mode of operation must be switched ON.
- Boost mode of operation can be switched ON manually or automatically. Automatic selection of "Boost mode" and switching back to "Float mode" is achieved by sensing battery voltage level.
- Generally in "Boost mode" charger charges battery at a constant current (CC) and battery voltage increases gradually.
- In order to restrict high battery voltage to appear across load a series dropper diode network D1.....Dn is provided, which comes in the circuit when DC1 is de-energised that is DC1 path becomes open.
- This DC contactor DC1 is de-energised by relay RL1. This "battery over voltage relay RL1" is activated at a preset battery voltage level (that is the maximum permitted voltage level which a load may normally withstand).
- On completion of boost charging, system swings back to float mode.

TOPOLOGY:
**FLOAT CUM BOOST
BATTERY CHARGER**