

## Description-

GCU102 is a single / three phase microprocessor based controller for the protection and control of the genset. The main feature is compact in size & reliability. It provides protection against LLOP, HCT, and any two faults which can be specified by the user as per his requirement.



When Mains supply fails, the GCU 102 module automatically initiates the generator start sequence. The module will give set number of cranks to the generator. If the Generator starts within set number of cranks, the module will shift the load to the Generator by activating Generator contactor after Warm-up period. If the Generator do not start in set number of cranks START FAIL ( StrF ) fault will occur. When the Mains supply comes back to the normal level, the load will shift to the Mains contactor after Mains Restore time and cool down time will be initiated. In cool down time, the Generator will run without load. Then the Generator is stopped in stop time. If the Mains fail during cool down time then load will immediately transferred to the Generator.

## Features-

- ◆ Microprocessor based design
- ◆ Automatic operating mode
- ◆ Single phase / Three phase mains sensing.
- ◆ Mains voltage phase reverse protection.
- ◆ Display of V-Hz-Hr- RPM of Generator and Voltage of Mains.
- ◆ Over speed, under speed protection.
- ◆ Over Voltage, Under Voltage protection for generator and mains.
- ◆ LED alarm indication
- ◆ Start / Stop delay timer
- ◆ Warm-up / Cooling down timer
- ◆ Energized to stop timer
- ◆ Load contactor control solid state output
- ◆ 16 programmable parameters.
- ◆ No external programming equipment needed.
- ◆ 4 Digital inputs, 4 relay outputs.
- ◆ Total Generator run hours counter.

## Control & Fault inputs with front Panel Visual Indication-

- |                          |                           |
|--------------------------|---------------------------|
| ● Mains supply ON        | ● Low oil pressure        |
| ● Mains contactor ON     | ● High engine temperature |
| ● Generator supply ON    | ● Alarm1                  |
| ● Generator contactor ON | ● Alarm2                  |

## Specifications-

### DC Supply-

8 to 14 Vdc continuous  
Reverse polarity protection

### Maximum Current-

Operating 75mA  
Standby 10mA

### Mains Input Range-

90 ( Ph-N ) to 300 ( Ph-N )  
Compatible for Single Phase or  
Three Phase mains sensing.

### Alternator Input Range-

180 ( Ph-N ) to 300 ( Ph-N )

### Alternator Input Frequency -

50Hz

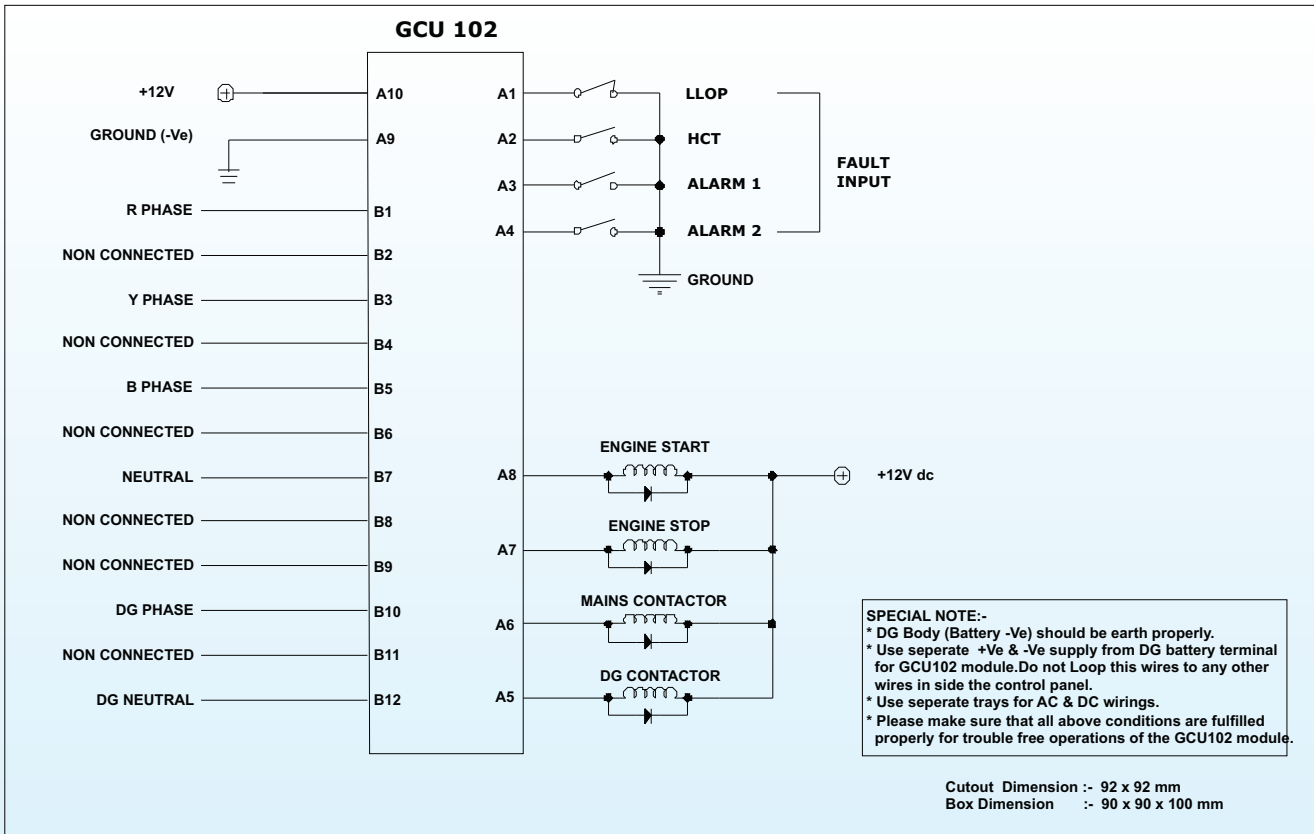
### Operating Temperature Range -

0 to 65 °C

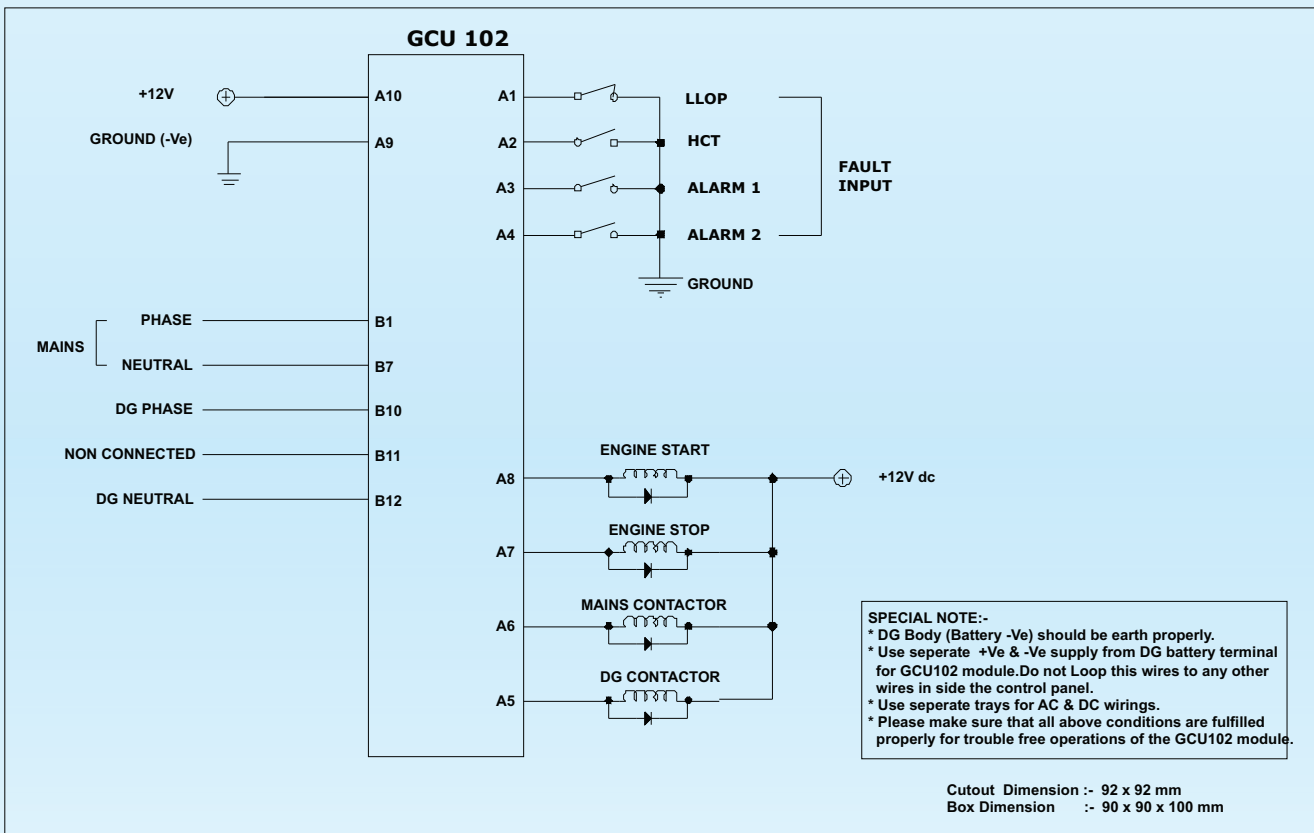
### Enclosure-

Box Dimension-90mm X 90mm X 100mm  
Cutout Dimension-92mm X 92mm

## GCU102 THREE PHASE CONNECTION DIAGRAM



## GCU102 SINGLE PHASE CONNECTION DIAGRAM



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\* Due to continuous product improvements specs. are subject to change without notice.