



**GCU105 LCD**



**GCU105 OLED**



### Description:

**GCU-105** is a Single / Three Phase AUTOMATIC / MANUAL Generator controller module. It controls Start-Stop function of the engine, monitors the generator operation. It is designed by taking great care related with electromagnetic interference for trouble free operation in harsh electrical environment (As per 'CE' norms.). Advanced single chip micro-computer protects the GEN-SET against malfunctioning. In case of Mains Failure / Over Voltage / Under Voltage / Lack of Grid Voltage, GCU-105 initiates an automatic GEN-SET start cycles & transfer the load from mains to the generator by switching the generator contactor. It is possible to select start attempts with both crank & rest period. On restoration of mains the load will be automatically transferred to mains and the GEN-SET will stop after a cool down time. In case any fault occurs the alarm is activated and Displayed on LCD display and GEN-SET gets stopped. The GCU-105 has 52 programmable parameters.

### FEATURES:

- ◆ Compatible for 1Ø & 3 Ø (Mains & D.G.)
- ◆ Built in KWH, Power Factor, Voltage, Current, Frequency meter
- ◆ Single chip micro-processor based design.
- ◆ 12 Digital inputs and output. (Programmable - 5 I/P & 8 O/P )
- ◆ Programmable 3 Analog inputs from Engine side.(Oil/Temp./Fuel)
- ◆ Relay Outputs for Mains and Generator Contactor.
- ◆ AUTO, MANUAL, TEST & Periodic Test operating mode
- ◆ External remote Start / Stop input
- ◆ LED alarm indications
- ◆ In-built Start / Stop delay
- ◆ Warm-up & Cooling down Time
- ◆ In-built RS485 communicator with modbus protocol.
- ◆ In-built RS232 Serial communicator for GSM & CDMA Modem.
- ◆ Over & under speed shut down
- ◆ Periodic Auto Start & Stop.
- ◆ Display of Mains Voltage, Current, KWH,
- ◆ Display of DG Voltage, current, frequency & KWH.
- ◆ Display of Date & time.
- ◆ Display Power Factor.
- ◆ Display of Fault Log Data, DG Start-Stop events,
- ◆ Display of Mains & DG KWH log.
- ◆ Display of Fuel log.
- ◆ Display of the DG Battery Voltage.
- ◆ DG KVA parameter setting available.
- ◆ CT Ratio programmable.
- ◆ Service Due Feature.
- ◆ Charge Input option.
- ◆ Programmable RPM selection.
- ◆ RTC based Runtime / Rest time.

### SPECIFICATION:

- ◆ Operating Voltage  
DC 8V to 32 Volts. Continuous  
Reverse polarity protected.
- ◆ **Maximum Current**  
Operating Current 500mA  
Stand By Current 300mA  
Solid State O/P Current 500mA max.
- ◆ **Voltage Rating for Inputs**  
AC 90V to 300Volts @ 50Hz (Ph – N)  
Digital Inputs DC 24 Volt max.
- ◆ **Solid State Output:**  
Short circuit protected Diode in Reverse polarity  
Maximum sink Current 500mA.
- ◆ **Operating Temperature:** 0°C to 70°C
- ◆ **Enclosure As Per DIN standard**  
270mm X 148mm X 65mm  
Cut out Dimensions: 232mm X 139mm

### Control & Fault LED Indications:

- ◆ Mains Supply ON
- ◆ Mains Contactor ON
- ◆ DG Supply ON
- ◆ DG Contactor ON
- ◆ Battery low voltage
- ◆ Low oil pressure
- ◆ High engine temperature
- ◆ Generator fail to start
- ◆ Low fuel level
- ◆ Generator over speed fault
- ◆ Emergency Stop
- ◆ Alarm indication

Display options LCD 20x4 or OLED Display.