



PROTECTION AND CONTROL RELAYS

VOLTAGE RELAYS

GSU-160 Phase Monitoring Relay

INTRODUCTION: GEMTA, GSU-160 Phase Monitoring Relay, are used to protect different types of electrical machines and equipments especially the electrical motors against harms of abnormal operation conditions such as one or more phase unbalances.

OPERATING PRINCIPLES: Three phase voltages and the neutral to which the relay is connected are applied to the electronic circuit sensitive to phase unbalances. The output of that circuit is zero in normal operating conditions. In case of lack of one or more phases or any phase unbalance, an AC voltage is produced in the output. That AC voltage is converted to DC by a rectifier and supplied to a comparator. If the voltage is higher than the reference level of the comparator, the auxiliary relay energised in normal operating conditions is de-energised and the relay performs protection.



TECHNICAL SPECIFICATIONS:

- 1-Voltage : 3x380V AC + Neutral
- 2-Sensitivity : $\pm 15\%$ Voltage Unbalance
- 3-Phase Order Sensitivity : No
- 4-Frequency : 50Hz
- 5-Contact Unit : 1
- 6-Contact Capacity : 10A, 220V AC
- 7-Operating Temperature : $-5^{\circ}\text{C} / 40^{\circ}\text{C}$
- 8-Test Voltage : 2kV AC, 50Hz, 1min.

MECHANICAL SPECIFICATIONS:

- 1-Type of Mounting : To Rail
- 2-Dimensions : See figure-2
- 3-Weight : 300 g.
- 4-Package Dimensions : 85 x 115 x 70mm

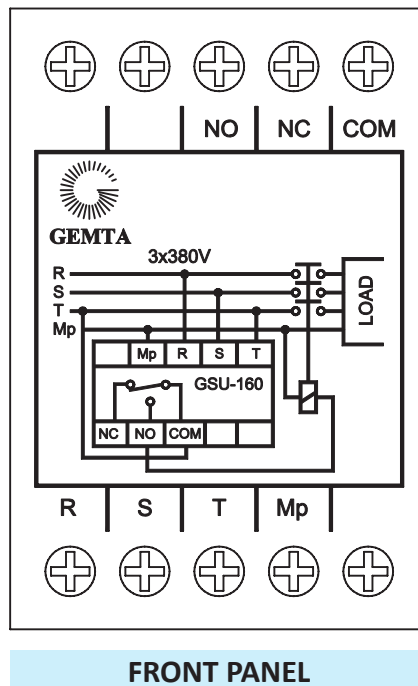


Figure-1

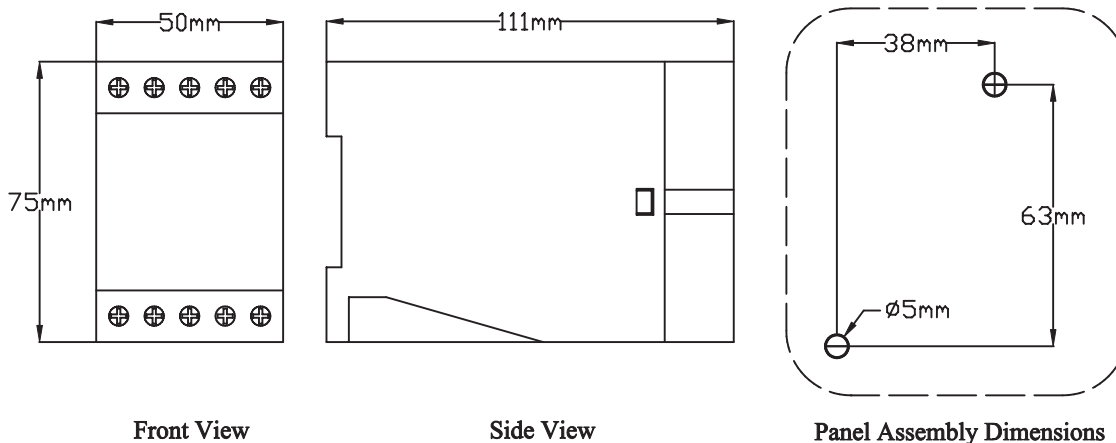


Figure-2