



PROTECTION AND CONTROL RELAYS

VOLTAGE RELAYS

GSU-310 3 Phase Over Voltage Relay

INTRODUCTION: GEMTA, GSU-310 3Phase Over Voltage Relay is used to protect the system against harms caused by high voltages.

OPERATING PRINCIPLES: GSU-310 operates making use of the voltage information of the 3-phase system being protected. The voltage of each phase is rectified and also stepped down, at the same time to a level (2-3 V) appropriate for electronic circuits. The information proportional with the input voltage is applied to the input of voltage comparators. The reference terminals of the comparators are at a common potential. The value of that potential can be varied by a pot on the front panel. Then it is provided for GSU-310 to protect the system over voltages with in a range variable between 95%-125% of the system voltage. The output of the comparators are connected to a AND gate with three input and that of the AND gate to auxiliary tripping relay. If the voltages of three phases are higher than the set voltage and the output of the AND gate is "1" the relay energised. In case any one or two or three voltages are lower than the adjusted is voltage, than the output of the AND gate is "0" the relay in operative, the contact falls back and the protected system is safe.



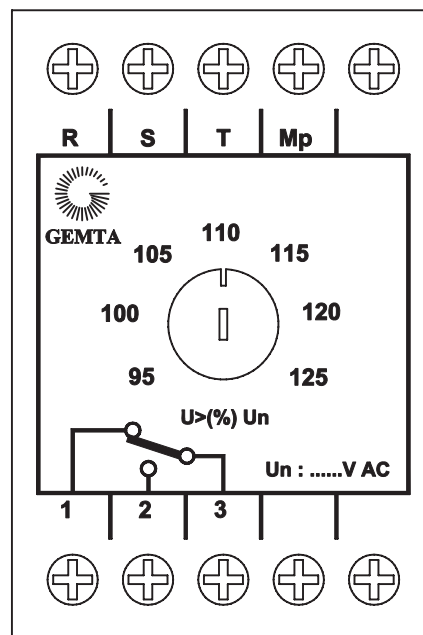
Figure-1

TECHNICAL SPECIFICATIONS:

- 1-Nominal Voltage : 3x380V AC or 3x100V AC
- 2-Setting Range : 95% - 125%
- 3-Setting Accuracy : $\pm 7.5\%$ max.
- 4-Consistency : $\pm 2\%$
- 5-Tripping Time : 40msec max.
- 6-Contact Unit : 1 change-over
- 7-Contak Capacity : 10A, 220V AC
- 8-Operating Temperature: $-5^{\circ}\text{C} / 55^{\circ}\text{C}$

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



FRONT PANEL

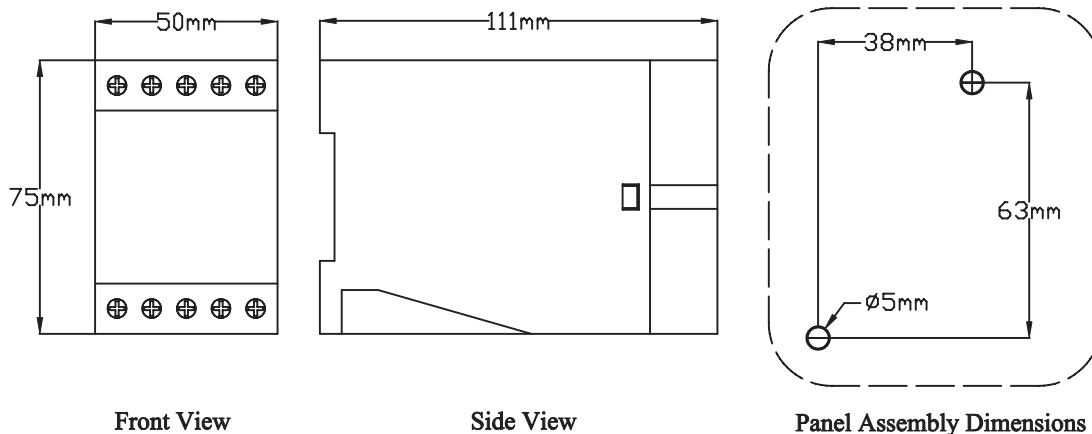


Figure-2

Front View

Side View

Panel Assembly Dimensions