

# T3300 Voltage Relay

## 3 Phase Combined Over Voltage and Under Voltage Relay

- Price competitive, due to the combined functions
- Visual indication of power, pick-up and relay tripping on both relays
- High precision digital countdown timer for delayed output
- Accepts high supply voltage variations: 70 - 120%
- Cost effective and highly reliable compact design
- 50 hours burn-in before final test
- Operating temperature range: -20°C to +70°C
- Flame retardant enclosure
- DIN rail or screw mounting

### Application

The T3300 Voltage Relay is intended for effective voltage monitoring on generators, busbars or other distribution systems. The T3300 will signal when the voltage is out of limits for a preset time period. The limits can be adjusted using the hysteresis knob.

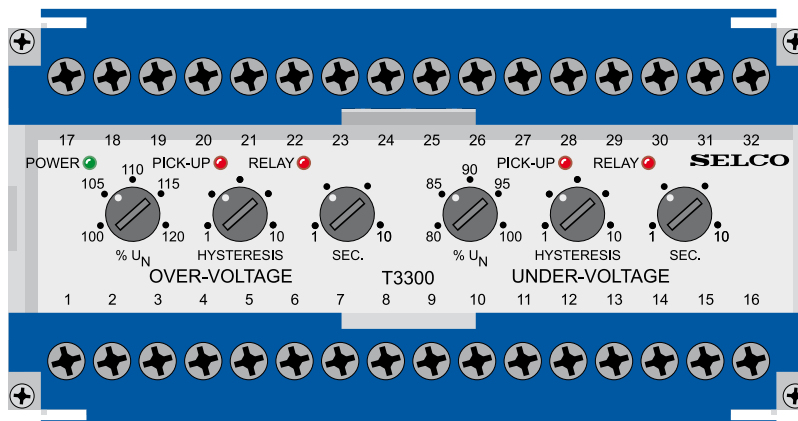
The T3300 is part of the SELCO T-Line series with modular units for protection, control and monitoring of generators, both in marine and land-based applications. The T3300 is normally used in land-based applications, where monitoring in all 3 phases is necessary.

### Function

The T3300 consists of two circuit parts fundamentally alike, one circuit part for over voltage and one for under voltage monitoring. Each circuit part has been provided with continuous variable presetting knobs and adjustable time delayed output relays.

The output relay for under voltage is a normally energized relay. It is activated at voltages higher than the preset value. The output relay for overvoltage is a normally de-energized relay. It is deactivated at voltages lower than the preset value. This means that the under voltage relay is activated and the over voltage relay is deactivated within the interval between the under and over voltage scale range.

If an improved voltage situation is demanded before the output goes back



to normal, this can be adjusted on the hysteresis on both under and over voltage.

For under voltage the timer is activated if the voltage goes below the under voltage setting and the timer is stopped again when the voltage goes above the setting.

Should the time delay expire, the output relay is deactivated and the voltage must now be increased with the preset hysteresis before the relay is activated again.

For over voltage, the timer is activated if the voltage goes above the over voltage setting and the timer is stopped again when the voltage goes below the setting.

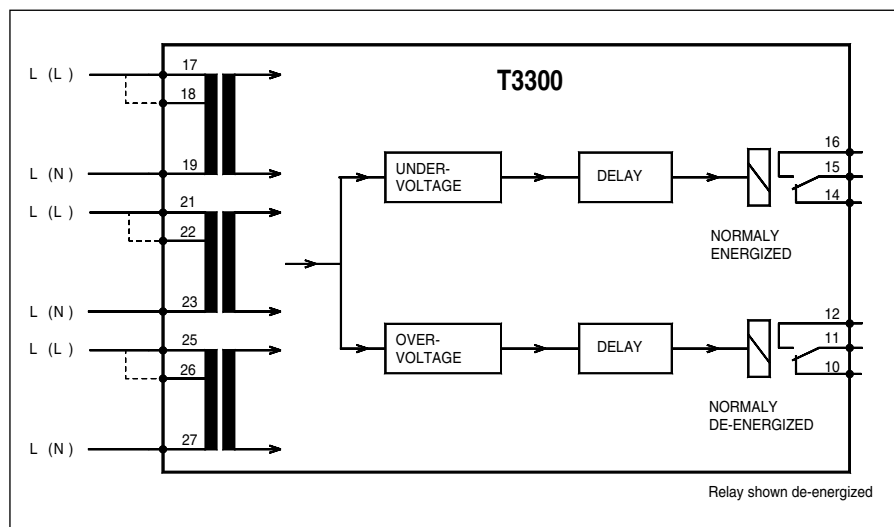
Should the time run out, the output relay is activated and the voltage must

now be decreased with the set hysteresis before the relay is deactivated again.

One LED indicates at under voltage pick-up level, and another LED indicates at over voltage pick-up level. Also two LEDs indicate when the respective output relays are operated on fault level. The green power LED indicates when the voltage relay is on power. The connection diagram shows the system de-energized.

### Installation

The supply voltage is connected to terminals 17-19 / 21-23 / 25-27 or 18-19 / 22-23 / 26-27 according to the supply source. If the T3300 is to be used in a single phase system, then it is necessary to interconnect all three L(L) terminals, and all three L(N) terminals.



Connection Diagram.

# Specifications

## T3300 Voltage Relay

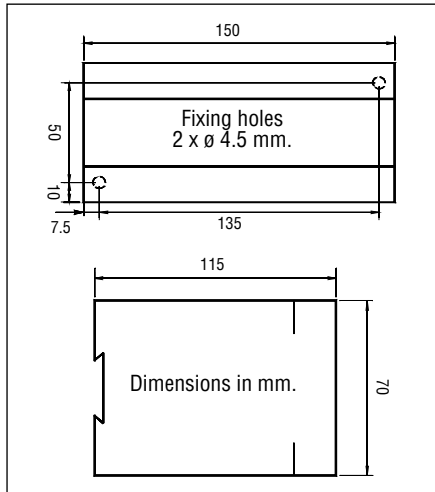


Fig. 3. Dimensions.

<b>Over voltage level</b>	100 - 120%
<b>Delay</b>	1 - 10 sec.
<b>Hysteresis</b>	1 - 10%
<b>Under voltage level</b>	80 - 100%
<b>Delay</b>	1 - 10 sec.
<b>Hysteresis</b>	1 - 10 %
<b>Max. voltage</b>	660V
<b>Voltage range</b>	70 - 120%
<b>Consumption</b>	5VA at $U_N$
<b>Frequency range</b>	40 - 400Hz
<b>Over voltage relay</b>	Normally de-energized
<b>Under voltage relay</b>	Normally energized
<b>Contact ratings</b>	AC: 250V, 2A, 250VA DC: 60V, 2A, 100W
<b>Overall accuracy</b>	±3% of highest value
<b>Repeatability</b>	±1%
<b>Operating temperature</b>	-20°C to +70°C
<b>Dielectric test</b>	2500V, 50Hz
<b>EMC</b>	CE according to EN50081-1, EN50082-1, EN50081-2, EN50082-2
<b>Burn-in</b>	50 hours before final test
<b>Enclosure material</b>	Polycarbonate. Flame retardant
<b>Weight</b>	1.2kg
<b>Dimensions</b>	70 x 150 x 115mm (H x W x D)
<b>Installation</b>	35mm DIN rail or 4mm (3/16") screws

The specifications are subject to change without notice.

### SELCO Worldwide



### Type Selection Table

Type	Terminal	
	17-19	18-19
T3300.0010	230V	
T3300.0020	450V	400V
T3300.0030	110V	100V
T3300.0040	480V	415V

Other voltages are available on request.

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