

VPU 3CB110

Overvoltage relay

User manual

General

- Three phase over voltage relay. Nominal voltage 110 V_{line}.
- Sensitive to line voltage. Independent of phase voltage e.g. during earth-fault. The measuring is based on peak values which are scaled to rms values.
- Independent of phase order.
- A green LED indicator for power on and a red LED for trip indication.

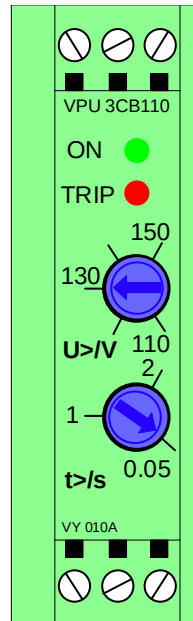


Figure 1. Front panel of VPU 3CB110

Inputs

- Three terminals for line voltages. Range: 100 Vac ... 175 Vac. 40 ... 100 Hz. The one second maximum input voltage is 275 Vac.
- Auxiliary power is taken from inputs L1, L2 and L3. At least one of the line voltages must exceed 100 Vac to ensure the power supply for the device.
The power consumption is less than 3 VA.

Output contacts

- One change over contact.
- Nominal load: 8 A/230 Vac. Max. switching power: 2 kVA.

Over voltage function

- Trip level setting range: 110 Vac ... 150 Vac.
- Trip level setting accuracy: 5 %.
- Temperature drift of the trip level: 5 % within the specified temperature range.
- Operating time setting range: 50 ms ... 2 s.
Guaranteed minimum delay with at least 10 V overvoltage: 25 ... 50 ms.
Guaranteed maximum delay with at least 10 V overvoltage: 1.6 ... 3.5 s.
At cold start, with one line voltage only, the shortest delay may be prolonged to 80 ms.
At cold start the longest delay may actually be shortened down to 1200 ms.
- Voltage hysteresis: 8 ... 3Vac.

Mounting

- The connections must be done without any applied voltage
- EN 50 022 top hat rail, 35 mm.
- Dimensions: W x H x D = 22.5 x 79 x 85.5 mm

Environmental conditions

- Ambient temperature: -10°C ... +55°C
- Mass of the device: 80 g.

Test voltages

EMC tests

The device fulfils the following parts of EMC-directive 89/336/EEC:

- EN 50081-1 (1992) Generic emission standard

EN 55022 Class B (August 1994)	Conducted emission
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- EN 50082-2 (1995) Generic immunity standard

EN 61000-4-2 (March 1995)	Electrostatic discharge immunity, 2..8 kV
EN 61000-4-4 (March 1995)	Fast transient, 2 kV
EN 61000-4-3 (September 1996)	RF field, 10 V/m
ENV 50204 (March 1995)	GSM immunity, 10 V/m
EN 61000-4-6 (July 1996)	Conducted RF, 10 V _{rms}

Insulation tests

IEC 60664-1 (1992)	2000 V _{rms} 50 Hz, 1 minute between terminal groups "4&5&6" and "1&2&3"
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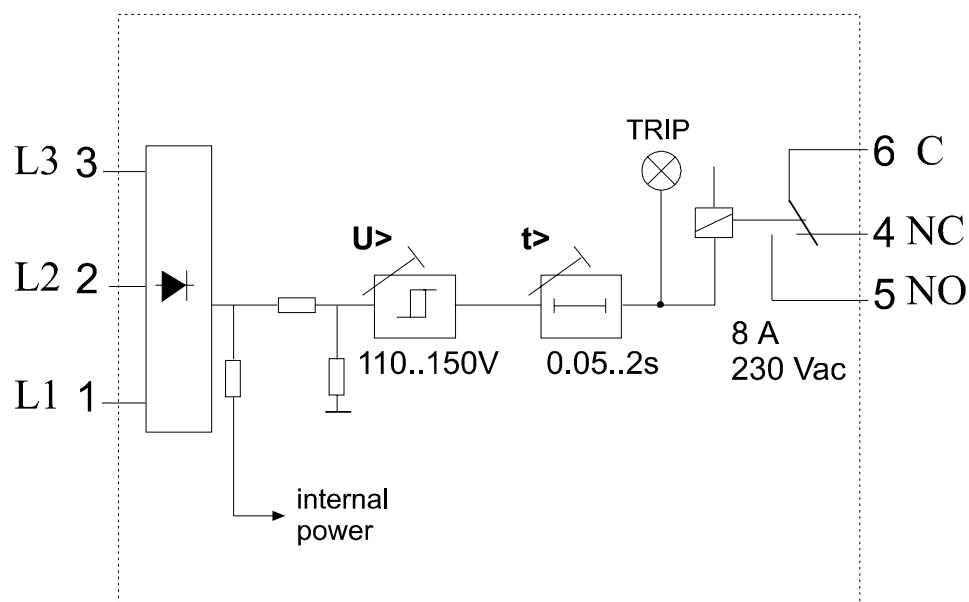


Figure 2. Block diagram of the VPU 3CB110 overvoltage relay.

Ordering code

VPU 3CB110

Overvoltage relay

Reference information

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