

TCP-3N

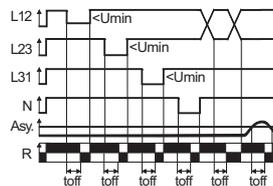
overview

- ◆ for 3-wire and 4-wire 3-phase supplies
- ◆ 3 phase monitoring relay for 3x230/400V
- ◆ monitors phase sequence
- ◆ detects phase failure with regenerated voltage present
- ◆ measures phase to phase voltage (adjustable from 110V to 440V)
- ◆ detects neutral connection (selectable by a DIP-switch)
- ◆ monitors asymmetry (adjustable from 5% to 30%, selectable by DIP-switch)
- ◆ 22.5 or 45mm DIN rail mount housing



Function

- Control relay active
- Control relay passive
- Contact closed
- Contact open



A load from 0,5kW detects the device with a AS-setting < 10% and the reverse voltage of consumers.

Control relay to monitor 3-wire and 4-wire 3-phase supplies for the failure of one or more phase, the correct phase rotation and the existence of a neutral connection.

The TCP-3N also measures the phase to phase voltages and calculates the asymmetry. Only if there is no failure the output relay energises.

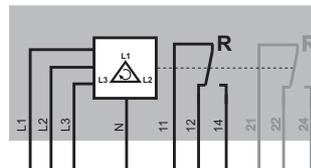
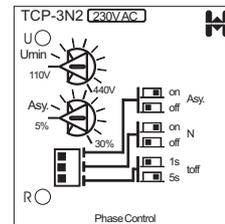
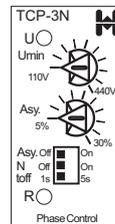
With the "Umin" potentiometer the minimum phase to phase voltage is selected between 110V and 440V, with the "Asy." potentiometer the maximum asymmetry is chosen from 5% to 30%. The monitoring of the neutral connection and the asymmetry is selectable by two DIP-switches.

If the monitoring of the neutral connection is disabled, the neutral connection is not required. Two different off-delay times are selectable by DIP-switch (1s or 5s).

specification

supply voltage variation	nominal voltage +/--10%	
frequency range	48 - 63 Hz	
duty cycle	100%	
relay type	1	2
output relay spec.	230V~	6A 6A
le AC-15	120V~	1A 1,5A
le AC-15	240V~	1A 1,5A
le DC-13	24V=	1A 1,0A
expected life time	DPCO	
mechanical	10 x 10 ⁴ operations	
screws	pozidrive 1	
screw tightening torque	0,6...0,8Nm	
operating conditions	-20 to +60 °C non condensing	

* EN 60947-5-1 VDE 0435



ordering information

part no	supply	output	relay type	housing types
TCP-3N	3x 110-440V~	30VA	SPCO	1
TCP-3N2	3x 110-440V~	30VA	DPCO	2



3 phase monitoring relay (phase to neutral measurement)