

ER108NW

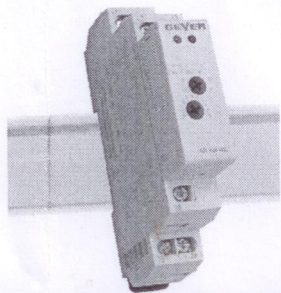
Manual



GEYER

ER 108 NW

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Relay for monitoring phase sequence and failure

3712-02-001 Rev. 3

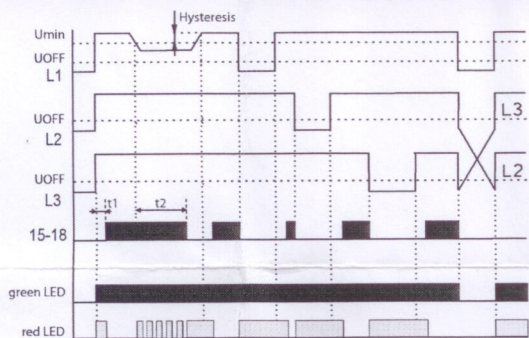
Warning!

The device is constructed to be connected into 3-phase main and must be installed in accordance with regulations and norms applicable in a particular country. Installation, connection and setting can be done only by a person with an adequate electro-technical qualification which has read and understood this instruction manual and product functions. The device contains protections against over-voltage peaks and disturbing elements in the supply main. To ensure correct function of these protection elements it is necessary to front-end other protective elements of higher degree (A,B,C) and screening of disturbances of switched devices (contactors, motors, inductive load etc.) as it is stated in a standard. Before you start with installation, make sure that the device is not energized and that the main switch is OFF. Do not install the device to the sources of excessive electromagnetic disturbances. By correct installation, ensure good air circulation so the maximal allowed operational temperature is not exceeded in case of permanent operation and higher ambient temperature. While installing the device use screwdriver width approx. 2 mm. Keep in mind that this device is fully electronic while installing. Correct function of the device is also depended on transportation, storing and handling. In case you notice any signs of damage, deformation, malfunction or missing piece, do not install this device and claim it at the seller. After operational life treat the product as electronic waste.

Characteristic

- relay monitors phase sequence and failure (e.g. control of correct motor winding etc.)
- relay designed for monitoring of 3-phase mains
- supply from all phases which means that relay is functional also in case of one phase failure
- supply and monitored supply Un:
 - 1 MODULE:
 - ER 108 NW- 3 x 400 V
- fixed time delay T1 (500ms) and adjustable time delay T2 (0-10s)
- faulty state is indicated by LED and breaking contact of output relay
- output contact 1x changeover 8 A / 250V AC1
- 1-MODULE , DIN rail mounting

Function

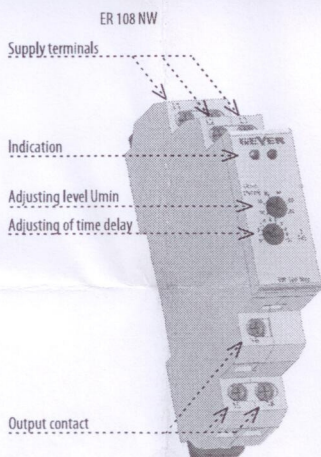


Relay i-n 3-phase network monitors correct sequence and failure of any phases. Green LED shines permanently and indicates inehency of supply voltage. In case of phase failure red LED flashes and relay de-energizes. Switchover into a failure state is delayed - the delay is set by a potentiometer on the panel of the device. If the phase sequences are not correct red LED shines permanently and the relay is switched off. In case supply voltage falls below 60% Un (Uoff lower level) relay immediately beraks with no delay and faulty state is indicate by red LED.

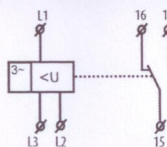
ER 108 NW: Thanks to supply from all three phases, this relay is able to operate even in case of failure of one from the phases.

Technical parameters	ER 108 NW
Supply and measuring:	L1, L2, L3
Supply terminals:	L1, L2, L3
Supply/measured voltage:	3 x 400 V / 50 Hz
Level Umin:	adjustable 70 - 95 % Un
Level Uoff:	60% Un
Consumption:	max. 2 VA
Hysteresis:	2%
Max. permanent voltage:	AC 3 x 460 V
Peak overload < 1s:	AC 3 x 500 V
Time delay t1:	max. 500 ms
Time delay t2:	adjustable 0 - 10 s
Output	
Number of contacts:	1 x changeover (AgNi)
Rated current:	8 A/ AC1
Switching capacity:	2500 VA/ AC1, 240 W/ DC
Inrush current:	10 A
Indication of output:	red LED
Mechanical life:	1x10 ⁷
Electrical life (AC1):	1x10 ⁶
Other information	
Operating temperature:	-20...+55 °C
Storage temperature:	-30...+70 °C
Electrical strength:	4 kV (supply - output)
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP 40 from front panel, IP 10 terminals
Overvoltage category:	III.
Pollution degree:	2
Max. cable size (mm ²):	max. 2 x 2.5, max. 1 x 4 / with sleeve max. 1 x 2.5, max. 2 x 1.5
Dimensions:	90 x 17.6 x 64 mm
Weight:	67 g
Standards:	EN 60255-6, EN 61010-1

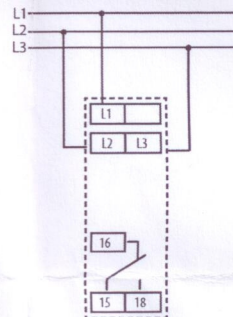
Description



Symbol



Connection



Type of load	$\cos \phi > 0.95$								
	AC1	AC2	AC3	AC5a uncompensated	AC5a compensated	AC5b	AC6a	AC7b	AC12
mat. contacts AgNi, contact 8A	250V / 8A	250V / 3A	250V / 2A	230V / 1.5A (345 VA)	x	300W	x	250V / 1A	250V / 1A
Type of load									
	AC13	AC14	AC15	DC1	DC3	DC5	DC12	DC13	DC14
mat. contacts AgNi, contact 8A	x	250V / 3A	250V / 3A	24V / 8A	24V / 3A	24V / 2A	24V / 8A	24V / 2A	x