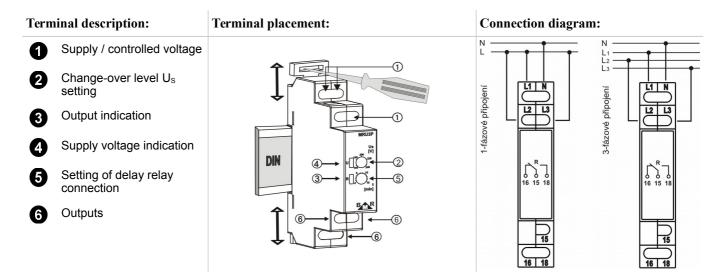
MRU3P version 1.2

3-phase monitoring relay with set voltage level

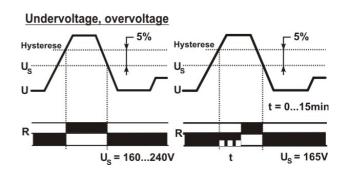
1. Description

Monitoring relay controls set voltage level. Device is used for over voltage and under voltage control in single phase and three phase systems. It is possible to set time delay after supply voltage connection from 0 to 15 minutes. Relay has one double-throw output contact 8 A.



2. Function

Relay controls voltage, in all three phases, to the neutral wire. After proper connection of supply voltage green LED turns on. If the voltage, in any phase, is under the set level, yellow LED is off and output is open. If the voltage of all phases gets over the set level plus hysteresis 5%, yellow LED turns on and output relays is closed. Controlled voltage level is set by potentiometer on the front panel in the range from 160 - 240 V AC. Hysteresis is set from factory to the 5% from measured value. For single-phase connection, terminals L1, L2 and L3 are connected together.



3. LED diagnostic

Green LED on:	Presence of supply voltage.
Green LED off:	Supply voltage is not present.
Yellow LED on:	Voltage in all three phases is higher than change over level plus hysteresis. Contact No. 19 - 18 is closed.
Yellow LED off:	Voltage in some phase is under the set level. Contact No. 15 - 16 is closed.



4. Technical features

Parameter	Value
Supply voltage	230 VAC
Supply terminals	L1, N
Power consumption	max. 1,5 VA
Controlled terminals	L1, L2, L3, N
Supply voltage indication	green LED
Controlled voltage	3 x 400 V / 230 V, N
Maximum controlled voltage (to N)	269 V
Maximum harmonic distortion	less than 5%
Hysteresis	fix 5 %
Voltage level U _s setting range	160 - 240 VAC
Delay setting range at supply connection	0 - 15 min
Output parameters	
Number and type of contacts	1x changeover contact
Nominal current	8 A
Switching power	max. AC 2000 VA
Trigger current	30 A
Nominal voltage / max. switching voltage	250 VAC / 440 VAC
Mechanical lifetime	3 x 10 ⁶
Electrical lifetime	1 x 10 ⁴ 250 VAC, 8 A
Others	
Working temperature	-20 +55 °C
Storage temperature	-40 +70 °C
Working position	any
Mounting	IEC 60715 (DIN 35)
Protection degree	IP 40 on panel / IP 20 terminals
Electrical strength	4 kV
Input wire diameter with / without cavern	max. 2x1,5mm²; 1x2,5mm² / max. 2x1,5mm²; 1x2,5mm²
Weight	75 g
Dimensions	90 x 18 x 65 mm
Standards	IEC 60255-6, IEC 61010