

### 3.2 Voltage Monitoring

#### MRU32R

#### 3 phase | 2 CO | voltage monitoring



##### Power supply

Nominal voltage	12 ... 48 V AC / DC	110 ... 240 V AC / DC
Operating voltage range	10 ... 60 V	85 ... 250 V
Power consumption AC / DC	3.2 VA / 1.6 W	2.6 VA / 1.5 W
Rated frequency	16 ... 63 Hz	16 ... 63 Hz

##### Measuring circuit

Measured parameters	U, f, ΔPhi, phase sequence
Min. setting step, resolution	0.1 V / 1 Hz / 1°
Monitoring functions	Under, over, inside, outside, phase sequence, phase failure
Number of voltage measurement inputs	3
Rated AC voltage L-N / L-L	230 V / 400 V
Rated DC voltage U+ / U-	300 V
DC voltage measurement range U+ / U-	+0.1 ... +690 V, -0.1 ... -690 V
Undervoltage setting range	+0.1 ... +700 V, -0.1 ... -700 V
Overtoltage setting range	+0.1 ... +700 V, -0.1 ... -700 V
Alarm delay	0.5 ... 999.9 s
Alarm reset delay	0.5 ... 999.9 s

##### Main circuit

Number of contacts	2 CO
Available contact materials	AgNi
Rated voltage	250 V AC
Rated current	6 A
Minimum load	10 mA, 10 V
Inrush current	10 A, 10 ms
Rated load DC	fig. 2
Rated load AC-1	1,500 VA
Mechanical endurance (cycles)	30 000 000
Electrical endurance at rated load AC-1 (cycles)	fig. 3

##### Insulation

Rated test voltage measuring / measuring circuit	1.5 kV rms / 1 min
Rated test voltage measuring circuit / power supply	2 kV rms / 1 min
Rated test voltage measuring circuit / main circuit	2 kV rms / 1 min
Rated test voltage main circuit / power supply	2 kV rms / 1 min
Rated test voltage main / main circuit	1.5 kV rms / 1 min
Rated test voltage open contact	1.5 kV rms / 1 min
Pollution degree	2
Overtoltage category	III

##### General data

Ambient temperature storage (no ice)	-40 ... 85 °C
Ambient temperature operation	-40 ... 60 °C
Conductor cross section	2.5 mm <sup>2</sup>
Nominal screw torque	0.6 Nm
Dimension	fig. 4
Weight	125 g
Protection degree	IP 20
Housing material	PC

##### Product references

Description	Type	12-48	110-240
Three phase monitoring	MRU32R/UC...V	✓	✓

Other voltages on request. Please contact support@comatreleco.com.  
"..." list control circuit voltage to complete product references.



fig. 1. Wiring diagram

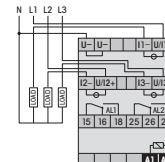


fig. 2. AC voltage endurance

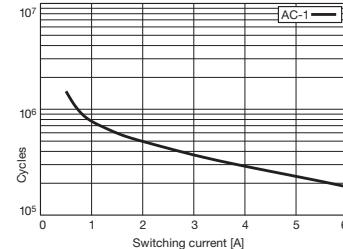


fig. 3. DC load limit curve

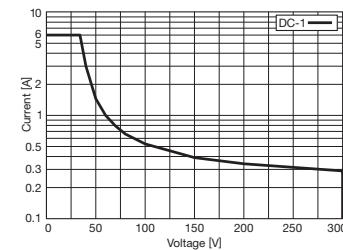
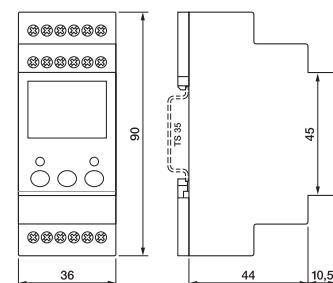


fig. 4. Dimension (mm)



##### Technical approvals, conformities

Standards IEC/EN 43880; IEC/EN 60730;  
IEC/EN 60947

Approvals CE cUL us EAC