

# MRU32

## 3 phase | 2 CO | voltage monitoring



### Power supply

Nominal voltage	12 ... 48 V UC	110 ... 240 V UC
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
AC voltage measurement range L-N / L-L	0.1 ... 480 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
Overvoltage 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
Contact material	⚡ 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	1500 VA
Mechanical endurance (cycles)	30 000 000
Electrical endurance at rated load AC-1	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
Overvoltage 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 reference

Description	Type	12-48	110-240
Three phase monitoring	MRU32/UC...V	✓	✓

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

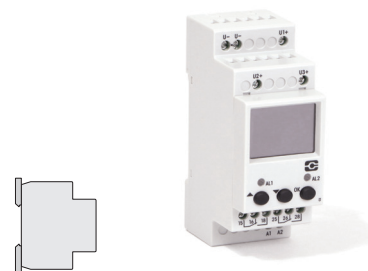


fig. 1. Wiring diagram

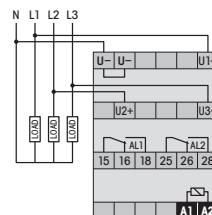


fig. 2. DC load limit curve

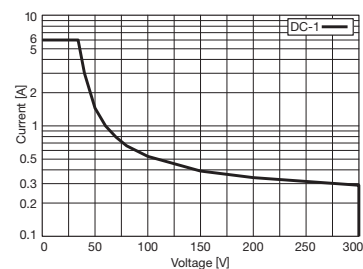


fig. 3. AC voltage endurance

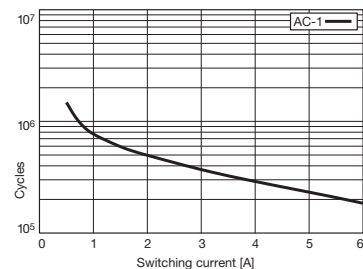
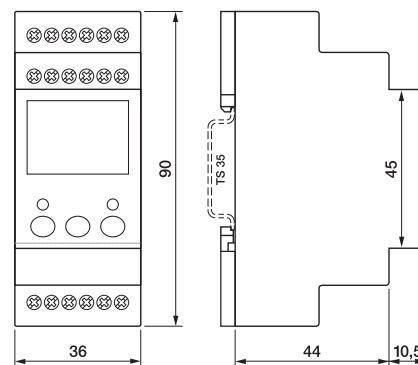


fig. 4. Dimension (mm)



### Standards and approvals

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



Approvals

	Description	MRM11	MRM11R	MRM32	MRM32R	MRU11	MRU32	MV53	SSU34	SSU31	SSU33L	MRI11	MRI32	TSR19	ESU-D2R	CT515R	CT524R	
Monitoring	One phase voltage monitoring	●	●			●		●										
	Three phase voltage monitoring			●	●		●		●		●							
	Four channel voltage measuring																	
	DC Voltage monitoring	●	●	●	●	●	●										●	
	One phase current monitoring	●	●									●						
	Three phase current monitoring			●	●								●					
	Four channel current measuring																	
	DC current monitoring	●	●	●	●							●	●				●	
	Phase failure			●	●		●		●	●	●							
	Phase sequence monitoring			●	●		●		●	●	●							
	Phase angle monitoring / measuring*			●	●		●		●		●							
	Differential voltage monitoring / measuring*								●		●							
	Neutral failure monitoring								●		●							
	Frequency monitoring / measuring*	●	●	●	●	●	●		●		●	●						
	Apparent power monitoring / measuring*	●	●	●	●													
	Active power monitoring / measuring*	●	●	●	●													
	Power factor monitoring / measuring*	●	●	●	●													
	Active energy measuring																	
	THDI / THDU measuring																	
	PTC monitoring														●			
Earth failure monitoring															●			
Functions	Threshold „over“ exceeded fig. 3.	●	●	●	●	●	●	●	●		●	●	●	●		●	●	
	Theshold „under“ exceeded fig. 4.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	„Inside“ band entered fig. 2.	●	●	●	●	●	●					●	●			●	●	
	„Outside“ band entered fig. 1.	●	●	●	●	●	●					●	●			●	●	
	Alarm on-delay	●	●	●	●	●	●	●	●		●	●	●		●	●	●	
	Alarm off-delay	●	●	●	●	●	●	●				●	●					
	Latching alarm output function	●	●	●	●	●	●					●	●	●				
	Threshold selectable	●	●	●	●	●	●	●	●			●	●	●	●	●	●	
	Threshold fixed									●	●			●				
Power supply	Supply isolated from measuring circuit	●	●	●	●	●	●					●	●	●	●			
	Supply from measure circuit							●	●	●	●					●	●	
Mounting	DIN rail mounting	●	●	●	●	●	●	●	●			●	●		●			
	Housing according IEC/EN 43880 (electrical distribution mounting)	●	●	●	●	●	●	●				●	●					
	Plug-in (socket mounting)									●	●	●		●		●	●	

