

### 3.4 Current Monitoring

#### MRI32

##### 3 phase | 2 CO | current 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	I, f
Min. setting step, resolution	0.1 A / 1 Hz
Monitoring functions	Under, over, inside, outside
Number of current measurement inputs	3
Rated measurement current	5 A
Measurement current range	0.1 ... 5 A
Underrun current setting range	0.1 ... 6 A
Overshoot current setting range	0.1 ... 6 A
Rated base frequency	15 ... 150 Hz
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	1250 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
Overshoot 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	MRI32/UC...V	✓ ✓

Other voltages on request. Please contact support@comatreleco.com.

..." list control circuit voltage to complete product references.



fig. 1. Wiring diagram

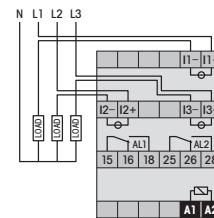


fig. 2. DC load limit curve

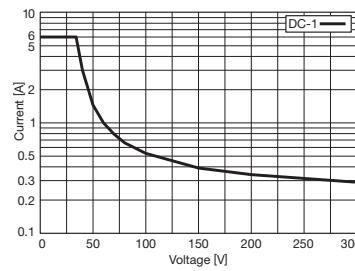


fig. 3. AC voltage endurance

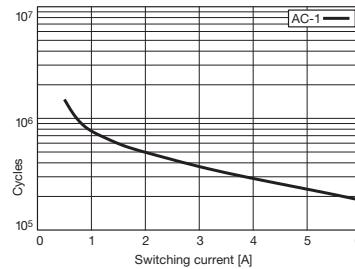
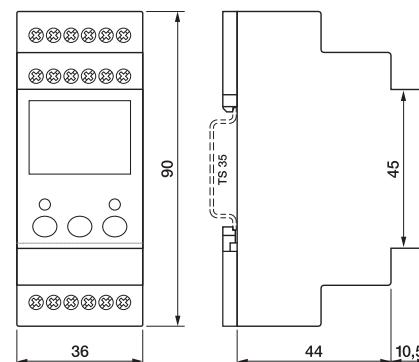


fig. 4. Dimension (mm)



###### Standards and approvals

Standards EN 60947; EN 60730-1; EN 61000-6-3;  
EN 61000-6-2

Approvals CE EAC cUL us

	Description	MRM11	MRM11R	MRM32	MRM32R	MRU11	MRU32	MV53	SSU34	SSU31	SSU33L	MR11	MR32	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.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Threshold „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)											●	●	●	●	●	●

