

# XM-52M-M400L - 3-phase monitoring relay, Datasheet

## 2 C/O, 16 A



## Description

The XM-52M-M400L is 3-phase voltage relay for phase failure, phase sequence and exceeding of monitored voltage in 3-phase circuits where no neutral is present. A adjustable time delay can be set between 0 and 10 seconds to eliminate short voltage drops or peaks. The 4 LEDs will give an indication depending of the status of the relay.

## Application

Monitoring phase failure, phase sequence and exceeding of monitored voltage in 3-phase circuits without neutral for general purpose applications.

### Features

- Monitors voltage 3 x 400
- Monitors 3-phase phase failure, phase sequence, asymmetry and exceeding of set voltage
- Adjustable time delay 0 - 10 s
- 2 C/O contact 16 A / AC1
- Supply voltage 230 VAC
- 35 mm rail mounting
- Output status by LED indicator
- Modular housing, 3 modules

### Benefits

- Rated current 16 A / AC1
- Long term availability
- 52 mm wide
- No maintenance

### Industry compliancy

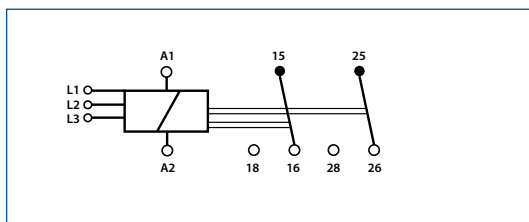
All our relays and accessories are designed according to regulations:

- EN 60255-6
- EN 61010-1
- CE

# XM-52M-M400L

## Technical specifications

### Connection diagram



### Time range

Time range T1	Fixed, max. 200 ms
Time range T2	Adjustable 0 - 10 s
Time setting	Potentiometer

### Measuring range

Nominal voltage	3x 400 V / 50 Hz
Terminals	L1, L2, L3
Upper level $U_{max}$	240...580 V
Bottom level $U_{min}$	35...99% $U_{max}$
Max. permanent overload	3x 480 V
Hysteresis	Adjustable 5% or 10 % of set value
Asymetry	5 -20%
Peak overload < 1 ms	600 V < 1 ms

### Accuracy

Set. accuracy	5%
Repeat accuracy	< 1%
Temperature dependence	<0.1% / °C
Limit values tolerance	5%

### Output

Number of contacts	2x change-over / SPDT (AgNi/Silver Alloy)
Rated current	16 A / AC1
Breaking capacity	4000 VA / AC1, 384 W / DC
Inrush current	30 A / < 3 s
Switching voltage	250 V AC1 / 24 VDC
Min. breaking capacity DC	500 mW
Output indication	LED
Mechanical life	4 x 10 <sup>6</sup> operations
Electrical life (AC1)	7 x 10 <sup>4</sup> operations



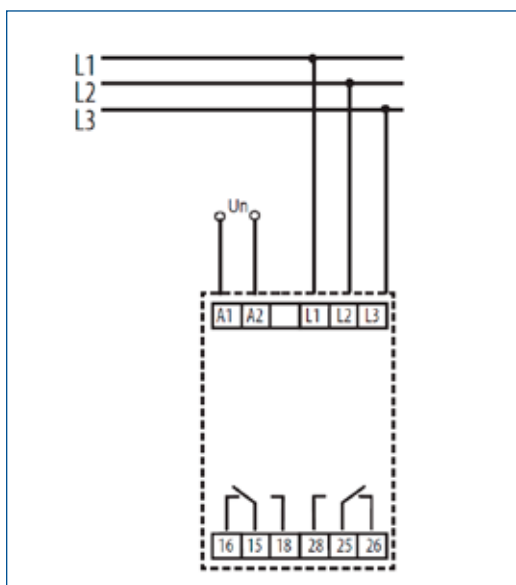
# XM-52M-M400L

## Technical specifications

### Supply

Supply terminals	A1, A2
Supply voltage	230 VAC
Burden	Max. 4.5 VA
Supply voltage tolerance	0.85...1.1 Un

### Connection



### Environmental conditions

Operating temperature	-20 °C... +55 °C
Storage temperature	-30 °C... +70 °C
Electrical strength	4 kV (supply - output)
Operating position	Any
Mounting	35 mm rail EN 60715
Protection degree	IP40 front panel, IP20 terminals
Overvoltage category	III
Pollution degree	2
Max. cable size	Solid wire maximum 1 x 2.5 or 2 x 1.5 mm <sup>2</sup> with sleeve maximum 1 x 1.5 mm <sup>2</sup>

### Mechanical data

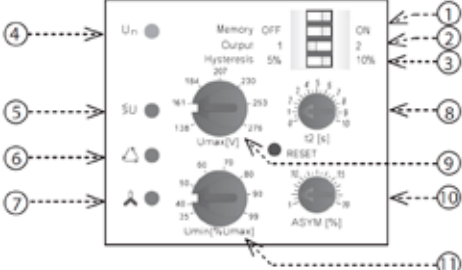
Dimensions (d x w x h)	90 x 52 x 65 mm
Weight	239 g



# XM-52M-M400L

## Technical specifications

### Design

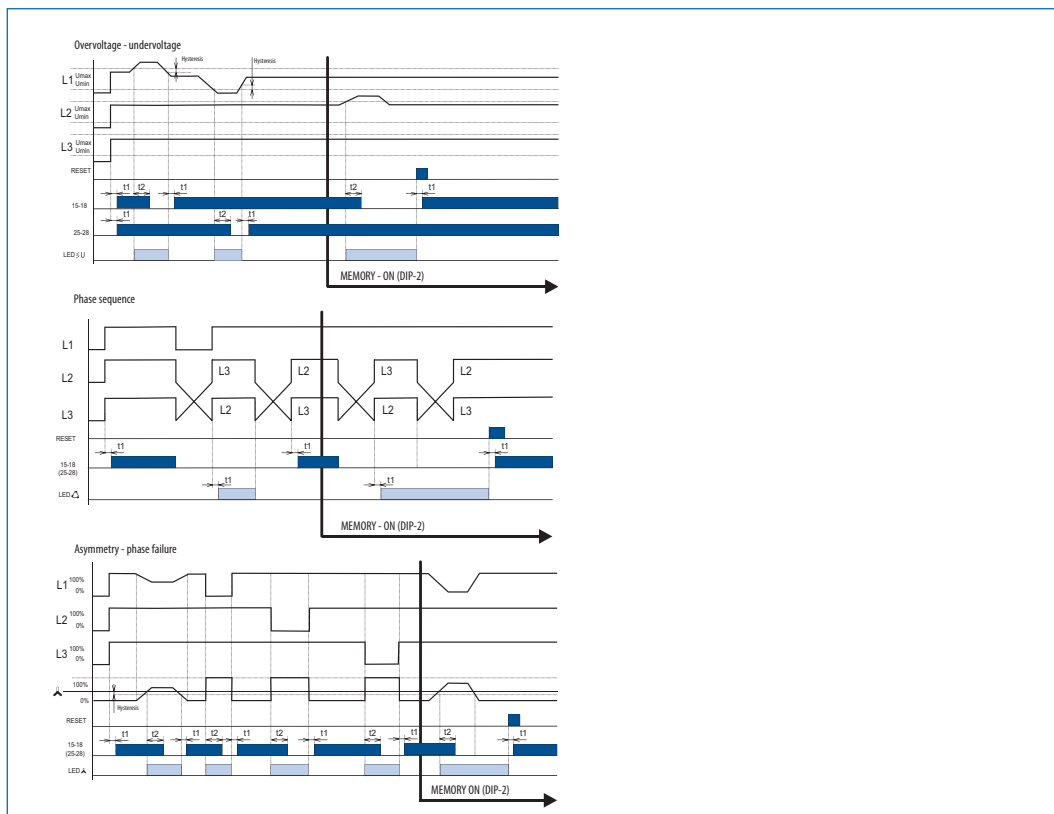


The front panel of the XM-52M-M400L device features several controls and indicators:

- ④: U<sub>n</sub> indicator
- ⑤: S/U indicator
- ⑥: Triangle indicator
- ⑦: Inverter indicator
- ⑧: Memory OFF/ON switch
- ⑨: Output Hysteresis 5%/10% switch
- ⑩: U<sub>max</sub>(V) and U<sub>min</sub>(V) potentiometers
- ⑪: ASYM [%] potentiometer

1. Memory function
2. Function of 2nd relay (1st-parallel, 2nd-independent)
3. Hysteresis from faulty to OK normal state
4. Supply voltage
5. Indication overvoltage/undervoltage, failure
6. Sequence indication
7. Asymmetry indication
8. Time delay T2
9. Adjusting upper level – U<sub>max</sub>
10. Asymmetry 5-20 % setting
11. Adjusting bottom level - U<sub>min</sub>

### Functions



# XM-52M-M400L

## Technical specifications

Art. no.	Type	Function	Contacts	Voltage range
326001027	XM-17M-IA25U	AC 1-phase current monitoring	1 C/O	230 VAC 50/60 Hz
326002003	XM-17M-M400L	AC 3-phase voltage monitoring	1 C/O	3x 400 VAC 50 Hz
326002004	XM-17M-M400LN	AC 3-phase + N voltage monitoring	1 C/O	3x 400 VAC / 230 VAC 50 Hz
326002000	XM-17M-VA230	AC 1-phase voltage monitoring	1 C/O	48-276 VAC 50 Hz
326002002	XM-17M-2XVA230	AC 1-phase voltage monitoring	2x 1 C/O	48-276 VAC 50 Hz
326002011	XM-17M-VA400LN	AC 3-phase + N voltage monitoring	1 C/O	3x 400 VAC / 230 VAC 50 Hz
326002001	XM-17M-VD24	DC 1-phase voltage monitoring	1 C/O	6-30 VDC
<b>326002006</b>	<b>XM-52M-M400L</b>	<b>AC 3-phase complete monitoring</b>	<b>2 C/O</b>	<b>230 VAC / 400 VAC 50/60 Hz</b>
326002007	XM-52M-M400LN	AC 3-phase + N voltage monitoring	2 C/O	230 VAC / 400 VAC 50/60 Hz
326002005	XM-52M-VA500	AC/DC 1-phase voltage monitoring	2 C/O	10-500 VAC/DC 50 Hz





[www.morssmitt.com](http://www.morssmitt.com)



**Mors Smitt France SAS**

Tour Rosny 2, Avenue du Général de Gaulle,

F - 93118 Rosny-sous-Bois Cedex, FRANCE

T +33 (0)1 4812 1440, F +33 (0)1 4855 9001

E [sales@msrelais.com](mailto:sales@msrelais.com)

**Mors Smitt Asia Ltd.**

# 807, Billion Trade Centre, 31 Hung To Road

Kwun Tong, Kowloon, HONG KONG SAR

T +852 2343 5555, F +852 2343 6555

E [info@morssmitt.hk](mailto:info@morssmitt.hk)

**Mors Smitt B.V.**

Vrieslantlaan 6, 3526 AA Utrecht,

NETHERLANDS

T +31 (0)30 288 1311, F +31 (0)30 289 8816

E [sales.msby@wabtec.com](mailto:sales.msby@wabtec.com)

**Mors Smitt Technologies Inc.**

1010 Johnson Drive,

Buffalo Grove, IL 60089-6918, USA

T +1 847 777 6497, F +1 847 520 2222

E [salesmst@wabtec.com](mailto:salesmst@wabtec.com)

**Mors Smitt UK Ltd.**

Doulton Road, Cradley Heath

West Midlands, B64 5QB, UK

T +44 (0)1384 567 755, F +44 (0)1384 567 710

E [sales.msuk@wabtec.com](mailto:sales.msuk@wabtec.com)