



Product designation

Voltage  
monitoring relays  
PMV50

Product type designation

**General characteristics**

Description

Minimum and  
maximum AC  
voltage, phase  
loss and incorrect  
phase sequence  
relay

Type of system

Three-phase  
without neutral

**Power supply**

Auxiliary supply voltage  $U_s$

Self powered

Operating voltage range

0.7...1.2  $U_e$

Rated frequency

Hz 50/60  $\pm 5\%$

Power consumption Max

VA 19

Power dissipation Max

W 2.5

**Control circuit**

Rated voltage to control ( $U_e$ )

min VAC 600

Voltage set-point ( $\%U_e$ )

min % 80...95

Max % 105...115

Tripping delay

s 0.1...20

Resetting time

s 0.1...20 (0.5 at  
power up)

Resetting hysteresis

% 3

Instantaneous tripping for  $U_e$

Voltage  $< 70\% U_e$

Type of reset

Automatic

Repeat accuracy

%  $\leq \pm 0.1$

Tripping time for phase loss

ms 60

**Relay outputs**

Number of relays

Nr. 1

Relay state

Normally  
energised De-  
energises at  
tripping

Contact arrangement

1 changeover  
SPDT

Rated operational voltage AC (IEC)

VAC 250

Maximum switching voltage

VAC 400

IEC Conventional free air thermal current  $I_{th}$

A 8

UL/CSA and IEC/EN 60947-5-1 designation

B300

Electrical life (with rated load)

cycles 100000

Mechanical life

cycles 30000000

### Functions

Modular version	2U
Minimum AC voltage	Yes
Maximum AC voltage	Yes
Phase loss	Yes
Incorrect phase sequence	Yes
Asymmetry	No

### Indications

Indication	1 green LED for power on and tripping and 2 red LEDs for tripping
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### Connections

Terminals type	Screw
Tightening torque for terminals	max Nm 0.8 max lbin 7
Conductor cross section	
AWG/Kcmil	min AWG 24 Max AWG 12
IEC	min mm <sup>2</sup> 0.2 Max mm <sup>2</sup> 4

### Insulations

Rated insulation voltage Ui	V 600
Rated impulse withstand voltage Uimp	kV 6
Operating frequency withstand voltage	kV 4

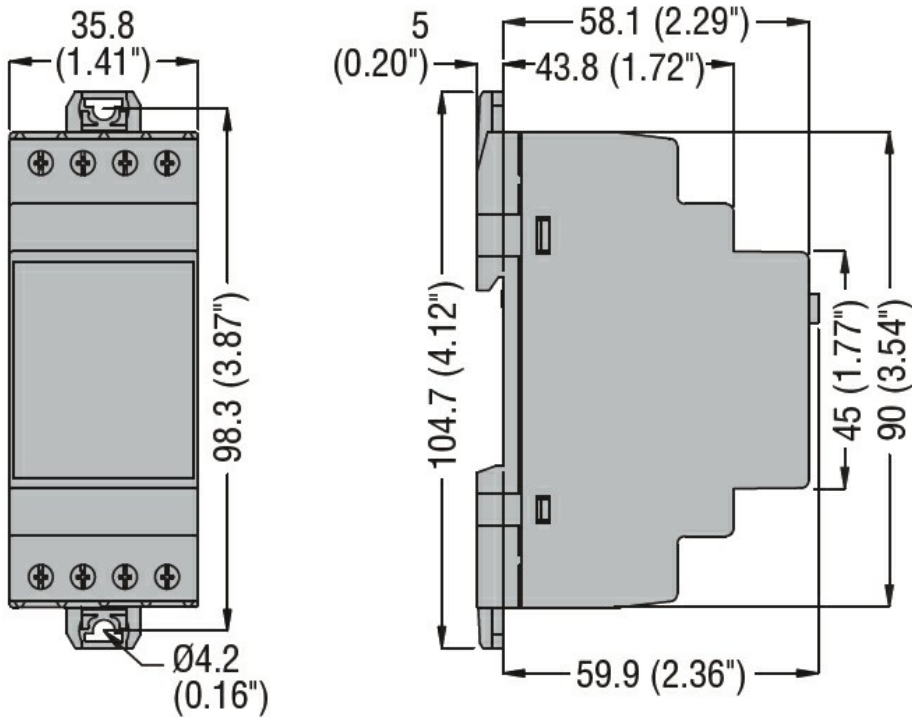
### Ambient conditions

Temperature	
Operating temperature	min °C -20 max °C +60
Storage temperature	min °C -30 max °C +80

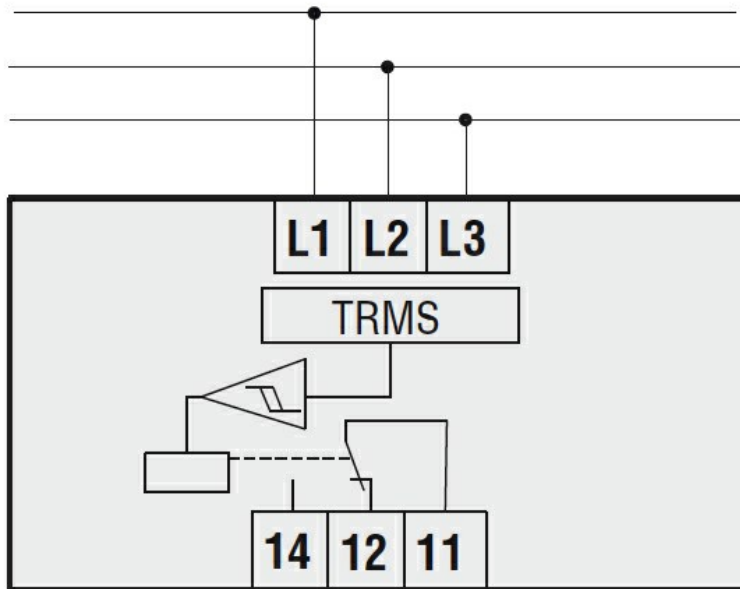
### Housing

Execution (n° of modules)	2
Material	Self-extinguishing polyamide
Mounting	35mm DIN rail (IEC/EN 60715)
IEC degree of protection	IP40 on front; IP20 at terminals
Dimensions (W x H x D)	mm 35.8 x 104.7 x 64.9
Weight	g 130

### Dimensions



### Wiring diagrams



### Certifications and compliance

#### Compliance

CSA C22.2 n° 14

IEC/EN 60255-5

IEC/EN 61000-6-2

IEC/EN 61000-6-3

UL 508

#### Certificates

cULus

EAC

ETIM classification

ETIM 8.0

EC001438 -  
Voltage  
monitoring relay