



Product designation

Product type designation

Voltage
monitoring relays
PMV50

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 11

Power dissipation Max

W 2.5

Control circuit

Rated voltage to control (U_e)

| | | |
|-----|-----|-----|
| min | VAC | 208 |
| Max | VAC | 240 |

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

% $< \pm 0.1$

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

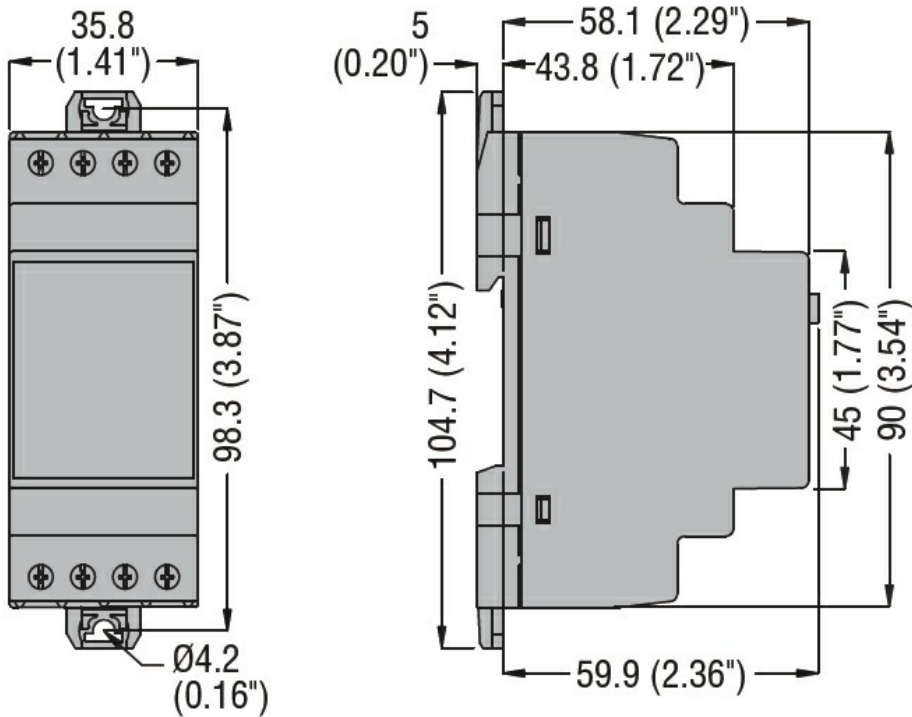
UL/CSA and IEC/EN 60947-5-1 designation

B300

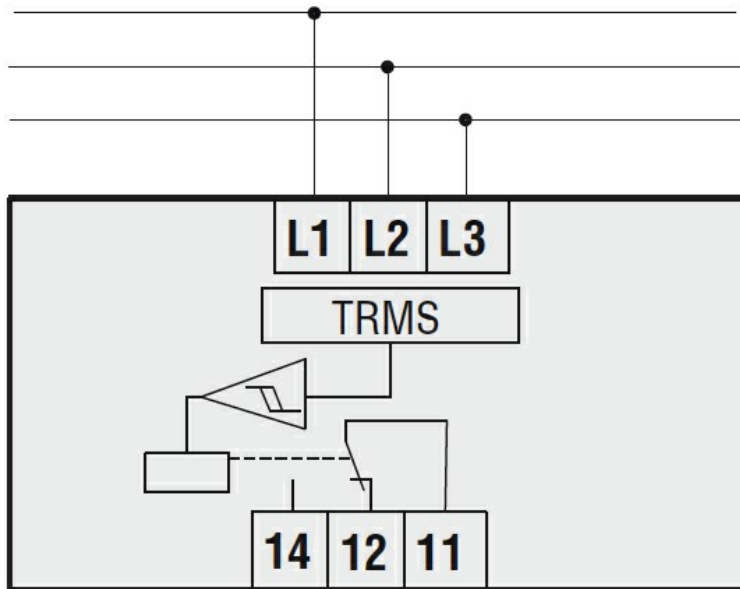
Electrical life (with rated load)

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 |
| 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 ² | | 0.2 |
| | | Max | mm ² | | 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 [mm (in)] | | | | | |



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