



Product designation

Product type designation

General characteristics

Voltage
monitoring relays
PMV50

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 30

Power dissipation Max

W 2.5

Control circuit

Rated voltage to control (U_e)

min	VAC	380
Max	VAC	575

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 $I_{th} \leq 40^\circ\text{C}$

A 8

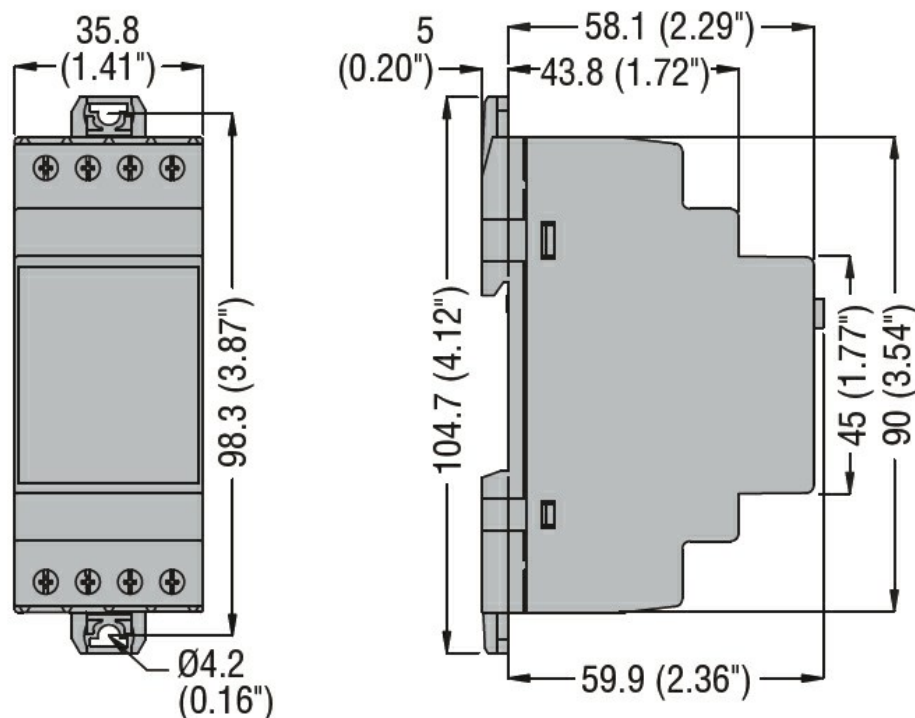
UL/CSA and IEC/EN 60947-5-1 designation

B300

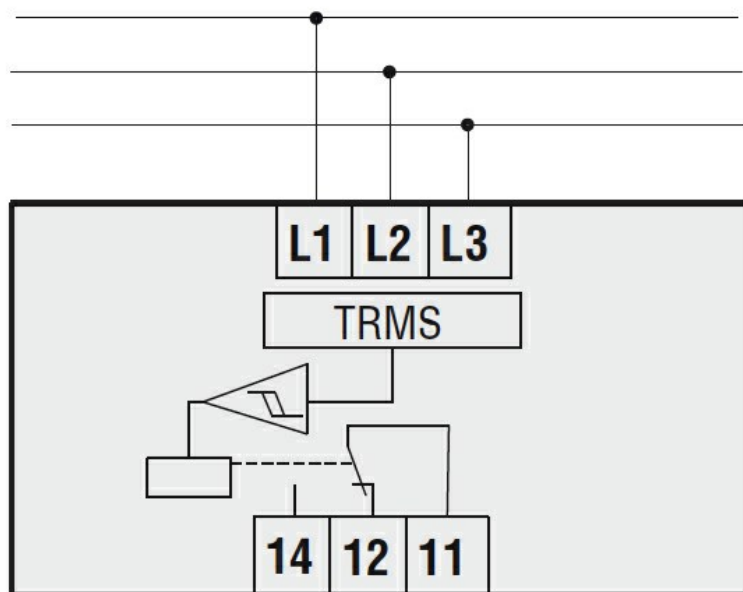
Electrical life (with rated load)

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 max	Nm lbin 0.8 7
Conductor cross section		
AWG/Kcmil	min Max	AWG AWG 24 12
IEC	min Max	mm ² mm ² 0.2 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 max	°C °C -20 +60
Storage temperature	min max	°C °C -30 +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 60335-2-89

IEC/EN 61000-6-2

IEC/EN 61000-6-3

UL 508

Certificates

CSA C22.2 n. 60335-2-40:22 LZGH A2L

CSA C22.2 No. 60335-2-89:21 LZGH A2L

cULus

EAC

UL 60335-2-40 LZGH A2L

UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0

EC001438 -
Voltage
monitoring relay