



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 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  $I_{th}$

A 8

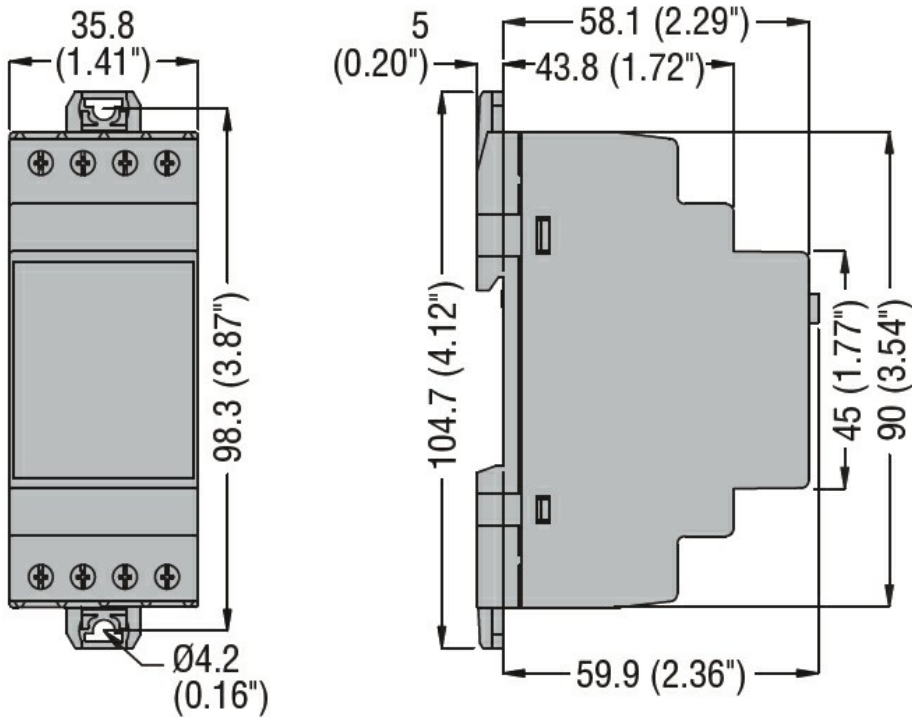
UL/CSA and IEC/EN 60947-5-1 designation

B300

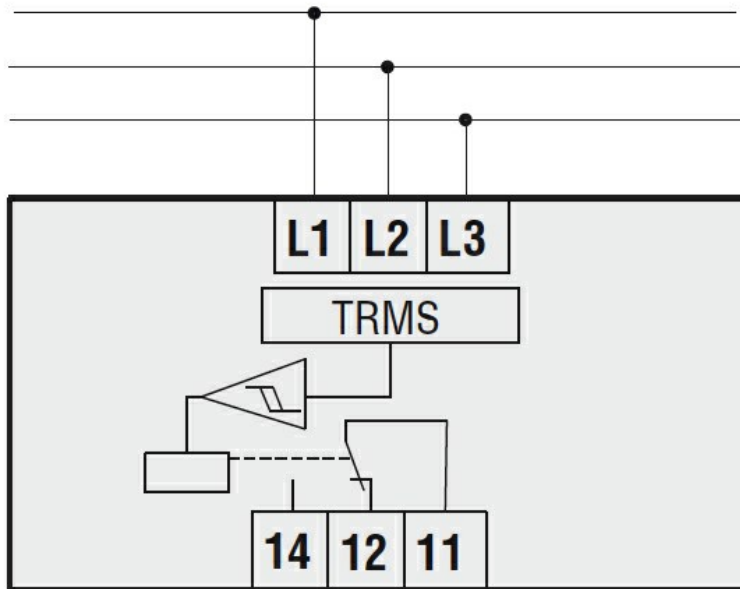
Electrical life (with rated load)

cycles 100000

Mechanical life				cycles	30000000
<b>Functions</b>					
Modular version					2U
Minimum AC voltage					Yes
Maximum AC voltage					Yes
Phase loss					Yes
Incorrect phase sequence					Yes
Asymmetry					No
<b>Indications</b>					
Indication					1 green LED for power on and tripping and 2 red LEDs for tripping
<b>Connections</b>					
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
<b>Insulations</b>					
Rated insulation voltage Ui			V		600
Rated impulse withstand voltage Uimp			kV		6
Operating frequency withstand voltage			kV		4
<b>Ambient conditions</b>					
Temperature					
	Operating temperature				
		min	°C		-20
		max	°C		+60
	Storage temperature				
		min	°C		-30
		max	°C		+80
<b>Housing</b>					
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
<b>Dimensions [mm (in)]</b>					



### 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