



Product designation

Voltage  
monitoring relays  
PMV50N

Product type designation

**General characteristics**

Description

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

Type of system

Three-phase  
with/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 27

Power dissipation Max

W 1.9

**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

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. 2

Relay state

Normally  
energised De-  
energises at  
tripping

Contact arrangement

2 changeover  
SPDT

Rated operational voltage AC (IEC)

VAC 250

Maximum switching voltage

VAC 400

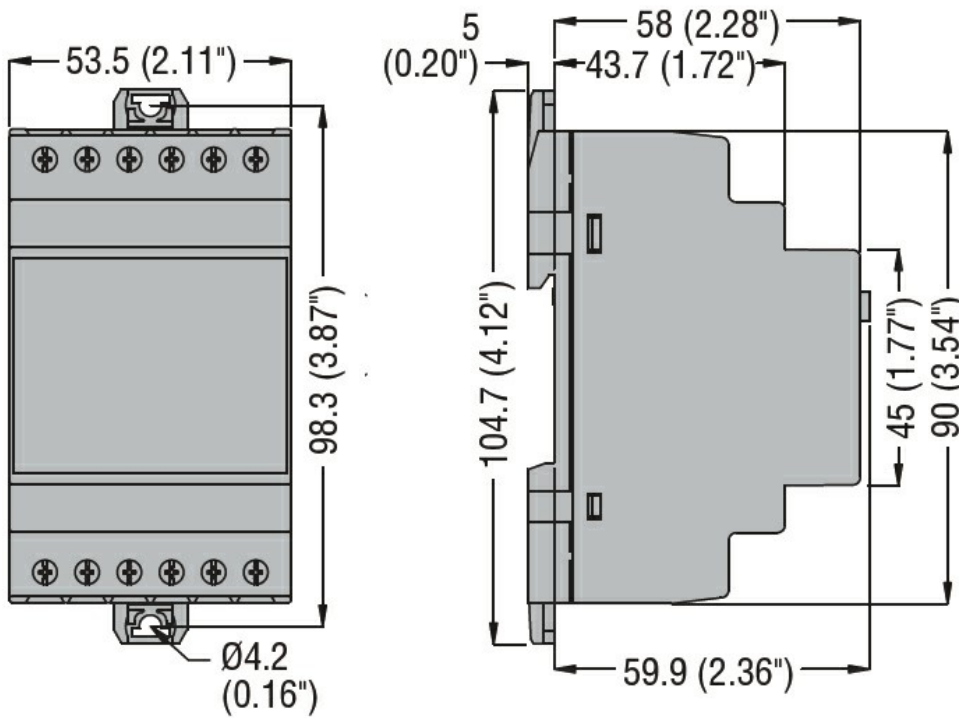
IEC Conventional free air thermal current Ith

A 8

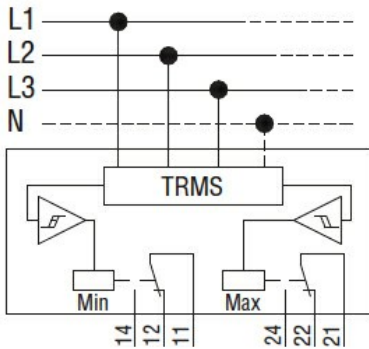
UL/CSA and IEC/EN 60947-5-1 designation

B300

Electrical life (with rated load)		cycles	100000
Mechanical life		cycles	30000000
<b>Functions</b>			
Modular version			3U
Minimum AC voltage			Yes
Maximum AC voltage			Yes
Natural loss			Yes
Phase loss			Yes
Incorrect phase sequence			Yes
Asymmetry			No
Minimum frequency			No
Maximum frequency			No
Programmable via NFC technology and APP			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	Ibin 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)			3
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	53.5 x 104.7 x 64.9
Weight		g	200
<b>Dimensions</b>			



**Wiring diagrams**



**Certifications and compliance**

**Compliance**

- IEC/EN 60255-5
- IEC/EN 61000-6-2
- IEC/EN 61000-6-3

**Certificates**

EAC

**ETIM classification**

ETIM 8.0

EC001438 -  
Voltage  
monitoring relay