



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	480
Max	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

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

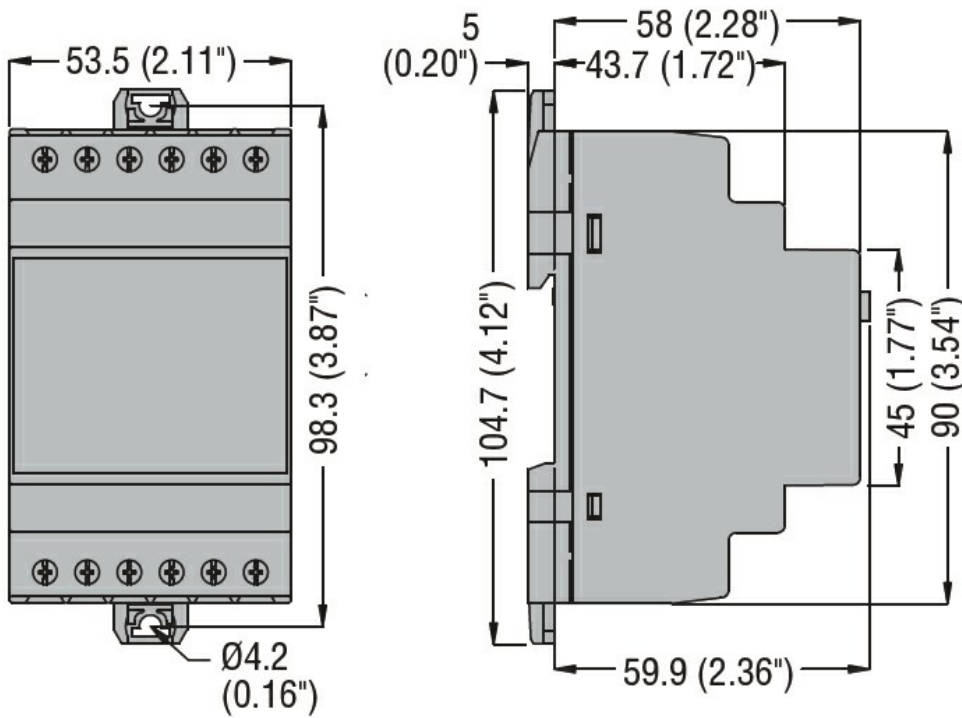
IEC Conventional free air thermal current I_{th}

A 8

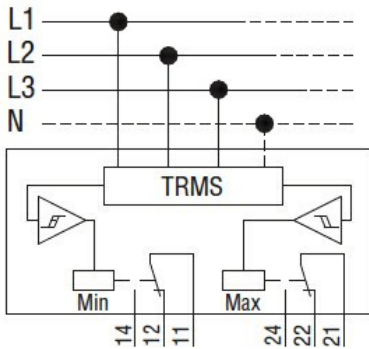
UL/CSA and IEC/EN 60947-5-1 designation

B300

Electrical life (with rated load)		cycles	100000
Mechanical life		cycles	30000000
Functions			
Modular version			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
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	Ibin 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)			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
Dimensions			



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