



Product designation

Product type designation

General characteristics

Voltage
monitoring relays
PMV50N

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	380
Max	VAC	440

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
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Connections

Terminals type	Screw
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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

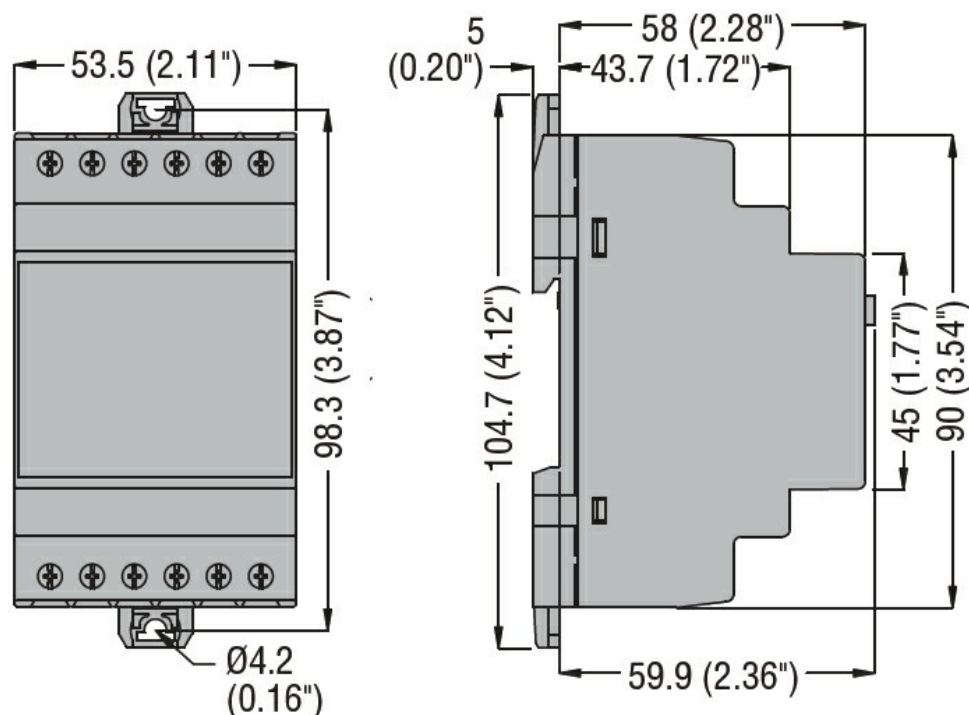
Ambient conditions

Temperature			
Operating temperature	min	°C	-20
	max	°C	+60
Storage temperature	min	°C	-30
	max	°C	+80

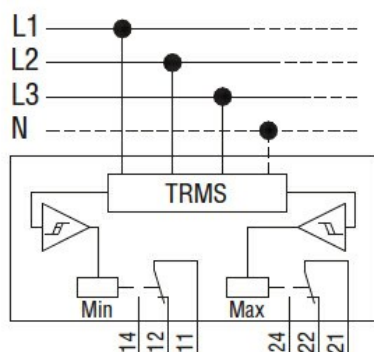
Housing

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