



Product designation

Product type designation

General characteristics

Voltage
monitoring relays
PMV80N

Description

Minimum and
maximum AC
voltage, minimum
and maximum
frequency, 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

Frequency set-point ($\%$ rated frequency)

min	%	1
Max	%	10

Tripping delay

s 0.1...20s (0.1...
5s freq.)

Resetting time

s 0.5

Resetting hysteresis

% 3 (0.5 freq)

Instantaneous tripping for U_e

Voltage $< 70\% U_e$

Type of reset

Automatic

Repeat accuracy

% ± 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

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		Yes
Maximum frequency		Yes
Programmable via NFC technology and APP		No

Indications

Indication		1 green LED for power on and tripping and 3 red LEDs for tripping
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Connections

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 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

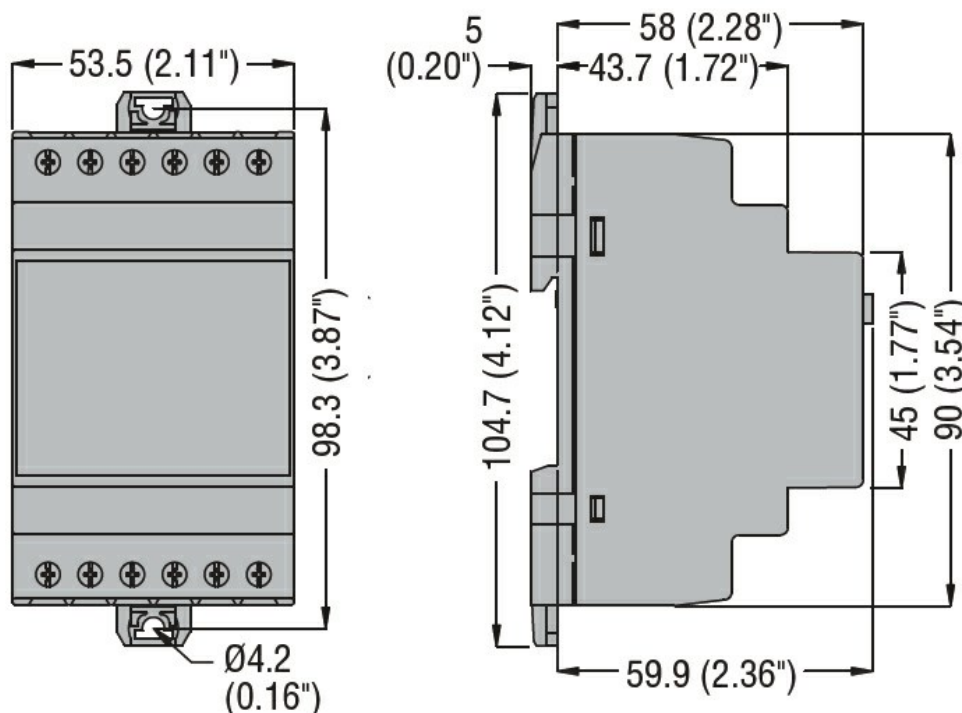
Temperature			
Operating temperature			
	min	°C	-20
	max	°C	+60
Storage temperature			
	min	°C	-30
	max	°C	+80

Housing

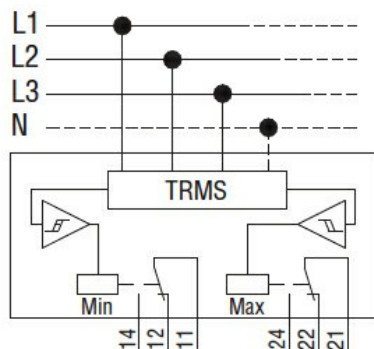
Execution (n° of modules)		3
Material		Self-extinguishing polyamide
Mounting		35mm DIN rail (IEC/EN 60715)

IEC degree of protection		IP40 on front; IP20 at terminals
Dimensions (W x H x D)	mm	35.8 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