



Product designation

Product type designation

Voltage  
monitoring relays  
PMV80N

**General characteristics**

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

% < $\pm 0.1$

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 <sub>th</sub>	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
------------	--	--

### 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 <sup>2</sup>	0.2
		Max	mm <sup>2</sup>	4

### Insulations

Rated insulation voltage U <sub>i</sub>	V	600
Rated impulse withstand voltage U <sub>imp</sub>	kV	6
Operating frequency withstand voltage	kV	4

### Ambient conditions

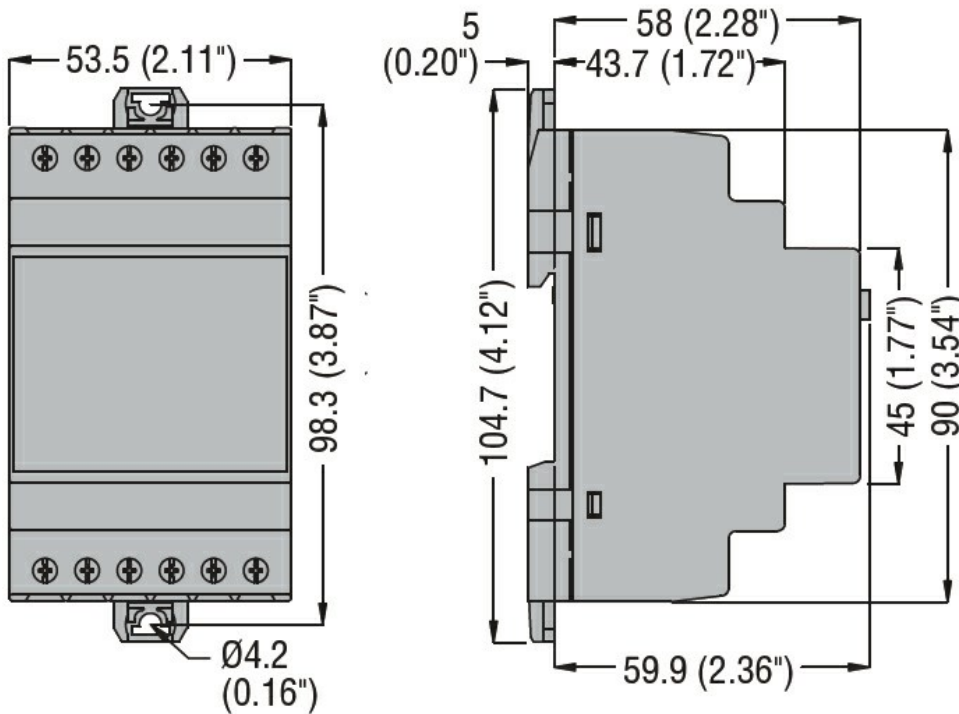
Temperature				
	Operating temperature			
		min	°C	-20
		max	°C	+60
	Storage temperature			
		min	°C	-30
		max	°C	+80

### Housing

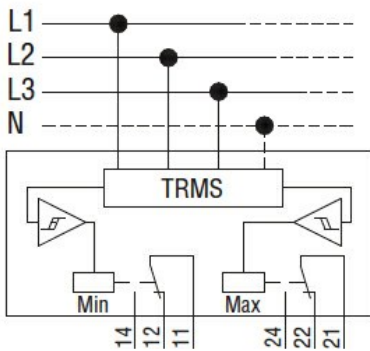
Execution (n° of modules)		3
Material		Self-extinguishing polyamide
Mounting		35mm DIN rail (IEC/EN 60715)

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