



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	208
Max	VAC	240

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

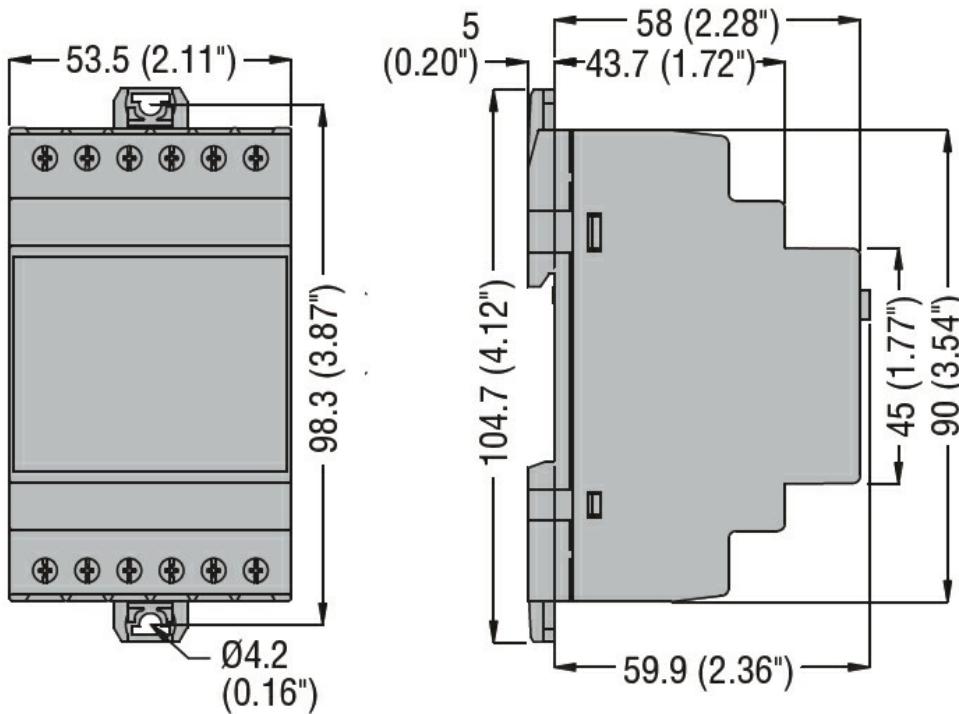
Relay state

Normally energised De-energises at tripping

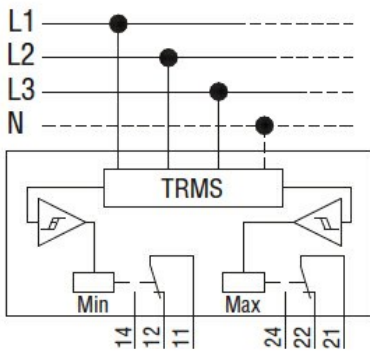
Contact arrangement				2 changeover SPDT
Rated operational voltage AC (IEC)	VAC			250
Maximum switching voltage	VAC			400
IEC Conventional free air thermal current I <sub>th</sub>	A			8
UL/CSA and IEC/EN 60947-5-1 designation				B300
Electrical life (with rated load)	cycles			100000
Mechanical life	cycles			30000000
<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				Yes
Maximum frequency				Yes
Programmable via NFC technology and APP				No
<b>Indications</b>				
Indication				1 green LED for power on and tripping and 3 red LEDs for tripping
<b>Connections</b>				
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
<b>Insulations</b>				
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
<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	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