



Product designation

Product type designation

Voltage  
monitoring relays  
PMV70N

**General characteristics**

Description

Minimum and  
maximum AC  
voltage, phase  
loss, neutral loss,  
incorrect phase  
sequence and  
asymmetry 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

Asymmetry set-point ( $\%U_e$ )

% 5...15

Tripping delay

s 0.1...20

Resetting time

s 0.5

Resetting hysteresis

% 3

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

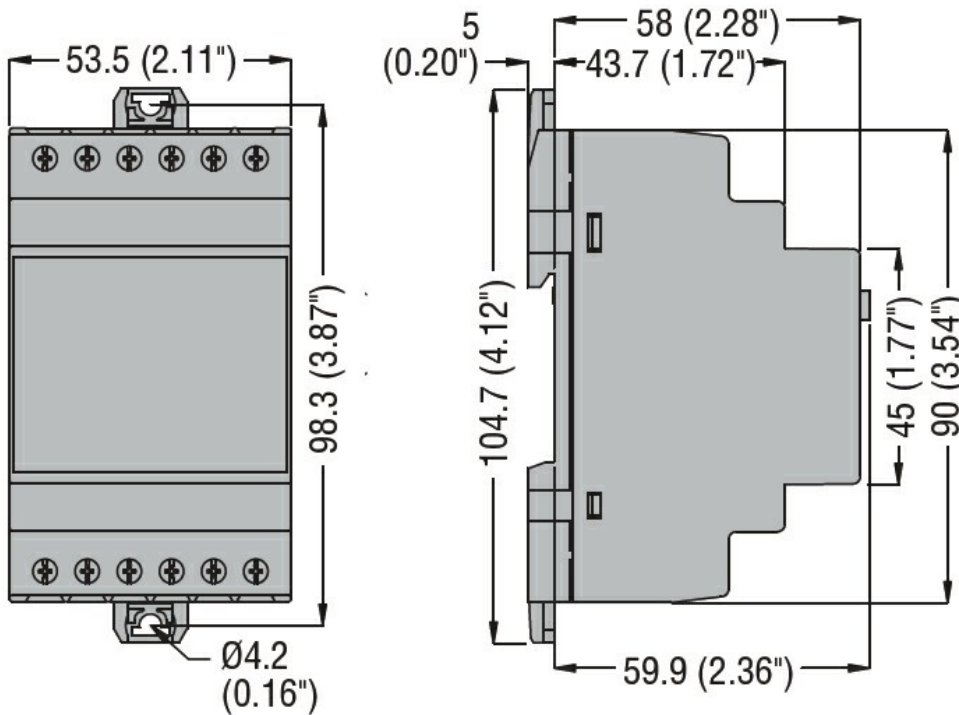
VAC 400

IEC Conventional free air thermal current  $I_{th}$

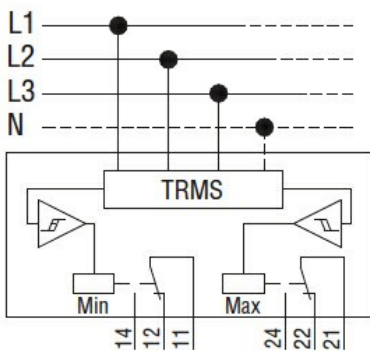
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UL/CSA and IEC/EN 60947-5-1 designation		B300	
Electrical life (with rated load)		cycles	100000
Mechanical life		cycles	30000000
<b>Functions</b>			
Modular version		3U	
Minimum AC voltage		Yes	
Maximum AC voltage		Yes	
Natural loss		Yes	
Phase loss		Yes	
Incorrect phase sequence		Yes	
Asymmetry		Yes	
Minimum frequency		No	
Maximum frequency		No	
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