



Product designation Voltage monitoring relays pNV10 Central characteristics PNA to a sequence relay Type of system Three-phase loss and incorrect phase sequence relay the explosion of the sequence relay the sequence relay the explosion of the sequence relay the se				
General characteristics Phase loss and incorrect phase sequence relay Type of system Three-phase without neutral Power supply Three-phase without neutral Power supply 0.8511 Ue Rated frequency Hz Power of system 0.8511 Ue Rated frequency HZ Power of dissipation Max W Power dissipation Max W Power dissipation Max W Rated voltage to control (Ue) min Max VAC Resetting time s Resetting inte s Resetting inte s Resetting hysteresis % Instantaneous tripping for Ue Voltage <70% Ue				monitoring relays
Description Phase loss and incorrect phase sequence relay Type of system Three-phase without neutral Power supply Auxiliary supply voltage Us Self powered Operating voltage range 0.8511 Ue Rated frequency Power consumption Max VA 20 Power dissipation Max W 2.2 Control circut min VAC 208 Rated frequency Hz 50/60.15% Power consumption Max W 2.2 Control circut min VAC 208 Rated voltage to control (Ue) min VAC 208 Max VAC 480 5 Tripping delay s 0.06 Resetting hysteresis % 5 Resetting hysteresis % 5 1 Self powered Automatic Repeat accuracy % <1				PMV10
Description incorrect phase sequence relay without neutral Type of system Three-phase without neutral Power supply	General characteristics			_ ·· · ·
Type of system without neutral Power supply Self powered Operating voltage range 0.851.1 Ue Rated frequency Hz 50/60 ±5% Power dissipation Max VA 20 Power dissipation Max W 2.2 Control circut min VAC 20 Rated voltage to control (Ue) min VAC 20 Max VAC 480 VAC 480 Tripping delay s 0.06 0.66 Resetting hysteresis % 5 0.06 Resetting ine s 0.5 0.06 Repeat accuracy % 41 1 Tripping time for phase loss ms 60 0 Relay outputs Nr. 1 1 Number of relays Nr. 1 1 Relay state spPDT SPDT 8 00 IEC Conventional free air thermal current lth A 8 00000 UL/CSA and IEC/EN 60947-51 designation B300 10 Electrical life (with rated load) cycles 100000 Maximum XC voltage No No Maximum AC voltage No No	Description			incorrect phase
Auxiliary supply voltage Us Self powered Operating voltage range 0.851.1 Ue Rated frequency Hz 50/60 ±5% Power consumption Max VA 20 Power dissipation Max W 2.2 Control circut W 2.2 Rated voltage to control (Ue) min VAC 208 Max VAC 208 Max VAC 208 Iripping delay W 2.2 Control circut W 2.2 Resetting time S 0.06 Resetting time S 0.06 Resetting time S 0.5 Instantaneous tripping for Ue Voltage <70% Ue	Type of system			
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Rated frequency Hz 50/60 ±5% Power consumption Max VA 20 Power dissipation Max W 2.2 Control circut min VAC 208 Rated voltage to control (Ue) min VAC 208 Max VAC 208 Max VAC 480 Tripping delay s 0.06 s 0.06 Resetting hysteresis % 5 5 5 Instantaneous tripping for Ue Voltage <70% Ue	Auxiliary supply voltage Us			
Power consumption Max VA 20 Power dissipation Max W 2.2 Control circut min VAC 208 Rated voltage to control (Ue) min VAC 208 Tripping delay s 0.06 Resetting time s 0.5 Resetting time s 0.5 Instantaneous tripping for Ue Voltage <70% Ue	Operating voltage range			0.851.1 Ue
Power dissipation Max W 2.2 Control circut min VAC 208 Rated voltage to control (Ue) min VAC 208 Max VAC 480 Tripping delay s 0.06 Resetting time s 0.5 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue	Rated frequency		Hz	50/60 ±5%
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Rated voltage to control (Ue) min VAC 208 Max VAC 480 Tripping delay s 0.06 Resetting time s 0.5 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue	Power dissipation Max		W	2.2
min MaxVAC VAC208 VACTripping delays0.06Resetting times0.06Resetting hysteresis%5Instantaneous tripping for UeVoltage <70% Ue	Control circut			
MaxVAC480Tripping delays0.06Resetting times0.5Resetting hysteresis%5Instantaneous tripping for UeVoltage <70% Ue	Rated voltage to control (Ue)			
Tripping delay s 0.06 Resetting time s 0.5 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue		min	VAC	208
Resetting times0.5Resetting hysteresis%5Instantaneous tripping for UeVoltage <70% Ue		Max	VAC	480
Resetting hysteresis%5Instantaneous tripping for UeVoltage <70% Ue	Tripping delay		S	0.06
Instantaneous tripping for Ue Voltage <70% Ue	Resetting time		S	0.5
Instantaneous tripping for Ue Voltage <70% Ue Type of reset Automatic Repeat accuracy % <±1	Resetting hysteresis		%	5
Type of reset Automatic Repeat accuracy % <±1	Instantaneous tripping for Ue			Voltage <70% Ue
Repeat accuracy % <±1	Type of reset			Automatic
Tripping time for phase lossms60Relay outputsNr.1Number of relaysNr.1Relay stateNormally energised De- energises at trippingContact arrangement1 changeover SPDTRated operational voltage AC (IEC)VAC250Maximum switching voltageVAC400IEC Conventional free air thermal current IthA8UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cycles100000Mechanical lifecycles3000000Functions1UModular version1UMinimum AC voltageNoPhase lossYes			%	<±1
Relay outputsNr.1Number of relaysNr.1Relay stateNormally energised De- energises at trippingContact arrangement1 changeover SPDTRated operational voltage AC (IEC)VAC250Maximum switching voltageVAC400IEC Conventional free air thermal current IthA8UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cycles100000Mechanical lifecycles3000000Functions1UModular version1UMinimum AC voltageNoMaximum AC voltageNo			ms	60
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Relay stateenergised De- energises at trippingContact arrangement1 changeover SPDTRated operational voltage AC (IEC)VACMaximum switching voltageVACIEC Conventional free air thermal current IthAUL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cyclesModular version1UModular version1UMinimum AC voltageNoMaximum AC voltageNoPhase lossYes	Number of relays		Nr.	1
Relay stateenergises at trippingContact arrangement1 changeover SPDTRated operational voltage AC (IEC)VACMaximum switching voltageVACIEC Conventional free air thermal current IthAIEC Conventional Free air thermal current IthAIEC Conventional IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cyclesMechanical lifecyclesSubstrained100000Functions1UModular version1UMinimum AC voltageNoPhase lossYes	·			Normally
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Contact analgementSPDTRated operational voltage AC (IEC)VAC250Maximum switching voltageVAC400IEC Conventional free air thermal current lthA8UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cycles100000Mechanical lifecycles3000000Functions1UModular version1UMinimum AC voltageNoPhase lossYes				
Rated operational voltage AC (IEC)VAC250Maximum switching voltageVAC400IEC Conventional free air thermal current lthA8UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cycles100000Mechanical lifecycles3000000Functions1UModular version1UMinimum AC voltageNoPhase lossYes	Contact arrangement			
Maximum switching voltageVAC400IEC Conventional free air thermal current lthA8UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cycles100000Mechanical lifecycles3000000Functions1UModular version1UMinimum AC voltageNoPhase lossYes				
IEC Conventional free air thermal current IthA8UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cycles100000Mechanical lifecycles3000000FunctionsUUModular version1UMinimum AC voltageNoMaximum AC voltageNoPhase lossYes				
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Mechanical lifecycles300000Functions1UModular version1UMinimum AC voltageNoMaximum AC voltageNoPhase lossYes	V			
FunctionsModular version1UMinimum AC voltageNoMaximum AC voltageNoPhase lossYes				
Modular version1UMinimum AC voltageNoMaximum AC voltageNoPhase lossYes			cycles	3000000
Minimum AC voltageNoMaximum AC voltageNoPhase lossYes				
Maximum AC voltage No Phase loss Yes				
Phase loss Yes				
Incorrect phase sequence Yes				
	Incorrect phase sequence			Yes

PMV10A440

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding



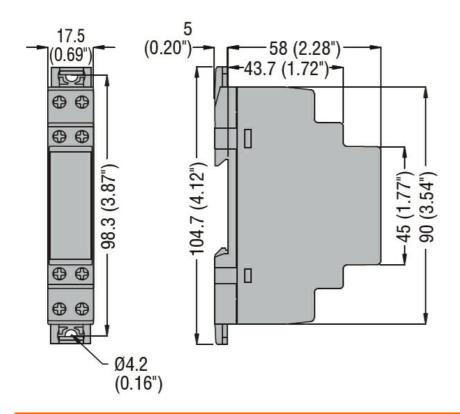
ENERGY AND AUTOMATION

Asymmetry				No
Indications				
Indication				1 green LED for power on and tripping
Connections				
Terminals type				Screw
Tightening torque f	for terminals			
		max	Nm	0.8
		max	lbin	7
Conductor cross s				
	AWG/Kcmil			
		min	AWG	24
		Max	AWG	12
	IEC			
		min	mm²	0.2
1		Max	mm²	4
Insulations	Research P			400
Rated insulation vo			V	480
	nstand voltage Uimp		kV	6
	cy withstand voltage		kV	4
Ambient conditions				
Temperature	Operating temperature			
	Operating temperature	min	°C	-20
		min	°C	-20 +60
	Storage temperature	max	C	+00
	Storage temperature	min	°C	-30
		max	°C	+80
Housing		IIIdx	U	+00
Execution (n° of m	odules)			1
				Self-extinguishing
Material				polyamide
Mounting				35mm DIN rail (IEC/EN 60715)
IEC degree of pro	tection			IP40 on front; IP20 at terminals
Dimensions (W x H	H x D)		mm	17.5 x 104.7 x 63
Weight			g	50
Dimensions [mm (i	in)]		-	

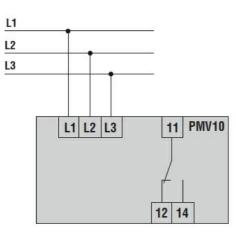
PMV10A440



VOLTAGE MONITORING REALY FOR THREE-PHASE SYSTEM, WITHOUT NEUTRAL, PHASE LOSS AND INCORRECT PHASE SEQUENCE, 208...480VAC 50/60HZ



Wiring diagrams



Compliance	CSA C22.2 n° 14	
	IEC/EN 60255-5	
	IEC/EN 61000-6-2	
	IEC/EN 61000-6-3	
	UL 508	
Certificates		
	cULus	
	EAC	
ETIM classificatio	n .	



PMV10A440 VOLTAGE MONITORING REALY FOR THREE-PHASE SYSTEM, WITHOUT NEUTRAL, PHASE LOSS AND INCORRECT PHASE SEQUENCE, 208...480VAC 50/60HZ

ETIM 8.0

EC001438 -Voltage monitoring relay