



| 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 | | | |
| Operating voltage range 0.851.1 Ue Rated frequency Hz 50/60.45% 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 480 7 Tripping delay s 0.06 8 Resetting fime s 0.5 5 Resetting hysteresis % 5 5 Instantaneous tripping for Ue Voltage <70% Ue | Power supply | | | |
| 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% |
| Control circut 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 consumption Max | | VA | 20 |
| 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 |
| Number of relaysNr.1Relay stateNormally energised De- energises at trippingContact arrangement1 changeover SPDTRated operational voltage AC (IEC)VACMaximum switching voltageVAC400250Maximum switching voltageVAC400400IEC Conventional free air thermal current IthAA8UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cyclesModular version100000Functions1UModular version1UModular version1UMaximum AC voltageNoPhase lossYes | | | | |
| 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 |
| Contact arrangement1 changeover SPDTRated 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 | Polov stato | | | energised De- |
| Contact 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 | Itelay state | | | - |
| 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 | | | | |
| UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cycles100000Mechanical lifecycles3000000FunctionsModular version1UMinimum AC voltageNoMaximum AC voltageNoPhase lossYes | | | | |
| Electrical life (with rated load)cycles100000Mechanical lifecycles3000000Functions1UModular version1UMinimum AC voltageNoMaximum AC voltageNoPhase lossYes | | | A | |
| 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

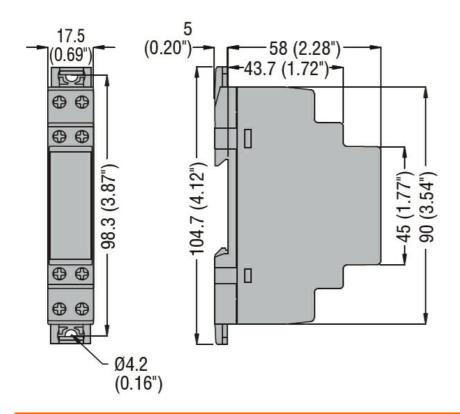
| Asymmetry | | | No |
|---------------------------------------|-----|------|---|
| Indications | | | |
| Indication | | | 1 green LED for power on and tripping |
| Connections | | | |
| Terminals type | | | Screw |
| Tightening torque for terminals | | | |
| | max | Nm | 0.8 |
| | max | Ibin | 7 |
| Conductor cross section | | | |
| AWG/Kcmil | | | |
| | min | AWG | 24 |
| | Max | AWG | 12 |
| IEC | | | |
| | min | mm² | 0.2 |
| | Max | mm² | 4 |
| Insulations | | | |
| Rated insulation voltage Ui | | V | 480 |
| Rated impulse withstand voltage Uimp | | kV | 6 |
| Operating frequency withstand voltage | | kV | 4 |
| Ambient conditions | | | |
| Temperature | | | |
| Operating temperature | | | |
| | min | °C | -20 |
| | max | °Č | +60 |
| Storage temperature | | • | |
| | min | °C | -30 |
| | max | °Č | +80 |
| Housing | | | |
| Execution (n° of modules) | | | 1 |
| Material | | | Self-extinguishing |
| Mounting | | | 35mm DIN rail (IEC/EN 60715) |
| IEC degree of protection | | | IP40 on front; IP20 at terminals |
| Dimensions (W x H x D) | | mm | 17.5 x 104.7 x 63 |
| | | | |
| Dimensions (W x H x D) Weight | | g | 50 |

PMV10A440

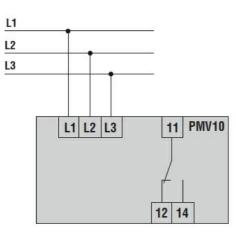
PMV10A440



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