VOLTAGE MONITORING REALY FOR THREE-PHASE SYSTEM, WITHOUT NEUTRAL, PHASE LOSS AND INCORRECT PHASE SEQUENCE, 380...600VAC 50/60HZ

| Product type designation Voltage monitoring relays Product type designation PMV20 General characteristics Phase loss and incorrect phase sequence relay Type of system Three-phase without neutral sequence relay Power supply Self powered Auxiliary supply voltage Us Self powered Operating voltage range .0.851.1 Ue Rated frequency Hz 50/60 ±5% Power consumption Max VA 2.8 Power dissipation Max VA 2.8 Power dissipation Max VA 2.8 Power dissipation Max VA 2.8 Power dostigation Max VA 2.8 Power dissipation Max VA 2.8 Power consumption Max VA 2.8 Power dissipation Max VAC 3.0 Resetting time for laws \$ 0.06 \$ 0.5 Resetting time for laws <td< th=""><th></th><th></th><th></th><th>The second of the second of th</th></td<> | | | | The second of th |
|--|---|-----|--------|--|
| Product type designation PMV20 | Product designation | | | • |
| Phase loss and incorrect phase sequence relay | Product type designation | | | • • |
| Phase loss and incorrect phase sequence relay Type of system Three-phase sequence relay Type of system Three-phase sequence relay Three-phase relay sequence relay Three-p | | | | 1 101 0 20 |
| Note System Without neutral Power supply | | | | incorrect phase sequence relay |
| Power supply Auxiliary supply voltage Us | Type of system | | | |
| Auxiliary supply voltage US Self powered Operating voltage range 0.851.1 Ue Rated frequency Hz 50/60 ±5% Power consumption Max VA 28 Power dissipation Max W 2.5 Control circut Rated voltage to control (Ue) min VAC 380 Max VAC 600 Tripping delay s 0.06 Resetting time s 0.5 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue | Power supply | | | |
| Rated frequency Hz 50/60 ±5% Power consumption Max VA 28 Power dissipation Max W 2.5 Control circut Rated voltage to control (Ue) min VAC 380 Max VAC 600 Tripping delay s 0.06 Resetting time s 0.5 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue | | | | Self powered |
| Power consumption Max VA 28 Power dissipation Max W 2.5 Control circut W 2.5 Rated voltage to control (Ue) min VAC 380 Max VAC 600 Tripping delay s 0.06 Resetting ime s 0.5 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue Type of reset Automatic Repeat accuracy % ≤±1 Tripping time for phase loss ms 60 Relay outputs Nr. 1 Number of relays Nr. 1 Relay state Nr. 1 Relay state 1 Nommally energised Denergised Denergises at tripping energised Denergises at tripping at tripping at tripping at tripping energised Denergises at tripping energised Denergises at tripping energised Denergises at tripping energises at tripping ener | Operating voltage range | | | 0.851.1 Ue |
| Power dissipation Max W 2.5 Control circut Image: Control Circut | Rated frequency | | Hz | 50/60 ±5% |
| Control circut Rated voltage to control (Ue) min Max VAC 380 Mode Tripping delay s 0.06 Resetting time s 0.5 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue | Power consumption Max | | VA | 28 |
| Rated voltage to control (Ue) min Max VAC | Power dissipation Max | | W | 2.5 |
| Tripping delay s 0.06 Resetting time s 0.05 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue | | | | |
| Tripping delay S 0.06 Resetting time s 0.5 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <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 | | | | |
| Resetting time s 0.5 Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue | | Max | VAC | |
| Resetting hysteresis % 5 Instantaneous tripping for Ue Voltage <70% Ue | | | S | |
| Instantaneous tripping for Ue Voltage <70% Ue Type of reset Automatic Repeat accuracy % <±1 | | | | |
| Type of reset Automatic Repeat accuracy % <±1 | | | % | |
| Repeat accuracy % <±1 Tripping time for phase loss ms 60 Relay outputs Number of relays Nr. 1 Relay state Normally energised Deenergised Deenergises at tripping Contact arrangement 1 changeover SPDT Rated operational voltage AC (IEC) VAC 250 Maximum switching voltage VAC 400 IEC Conventional free air thermal current Ith A 8 UL/CSA and IEC/EN 60947-5-1 designation B300 Electrical life (with rated load) cycles 100000 Mechanical life cycles 3000000 Functions Modular version 2U Minimum AC voltage No Maximum AC voltage No Phase loss Yes | | | | |
| Tripping time for phase loss Relay outputs Number of relays Relay state Contact arrangement Rated operational voltage AC (IEC) Maximum switching voltage ICC onventional free air thermal current lth UL/CSA and IEC/EN 60947-5-1 designation Electrical life (with rated load) Mechanical life Cycles Modular version Modul | | | | |
| Relay outputsNumber of relaysNr. 1Relay stateNormally energised Deenergises at trippingContact arrangement1 changeover SPDTRated operational voltage AC (IEC)VAC 250Maximum switching voltageVAC 400IEC Conventional free air thermal current IthA 8UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cycles 100000Mechanical lifecycles 3000000Functions2UModular version2UMinimum AC voltageNoPhase lossYes | | | | |
| Number of relaysNr.1Relay stateNormally energised Deenergises at trippingContact 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 lifecycles3000000Functions2UModular version2UMinimum AC voltageNoPhase lossYes | | | ms | 60 |
| Relay state Relay state Contact arrangement Contact arrangement Rated operational voltage AC (IEC) Maximum switching voltage VAC 250 Maximum switching voltage VAC 400 IEC Conventional free air thermal current lth A 8 UL/CSA and IEC/EN 60947-5-1 designation Electrical life (with rated load) Mechanical life Cycles 100000 Mechanical life Cycles 3000000 Functions Modular version Modular version Modular voltage No Maximum AC voltage No Maximum AC voltage No Phase loss Yes | | | | , |
| Relay state energised Deenergises at tripping Contact arrangement 1 changeover SPDT Rated operational voltage AC (IEC) VAC 250 Maximum switching voltage VAC 400 IEC Conventional free air thermal current Ith A 8 UL/CSA and IEC/EN 60947-5-1 designation B300 Electrical life (with rated load) cycles 100000 Mechanical life cycles 3000000 Functions Modular version 2U Minimum AC voltage No Maximum AC voltage No Phase loss Yes | Number of relays | | Nr. | |
| Contact arrangement SPDT Rated operational voltage AC (IEC) VAC 250 Maximum switching voltage VAC 400 IEC Conventional free air thermal current Ith A 8 UL/CSA and IEC/EN 60947-5-1 designation B300 Electrical life (with rated load) cycles 100000 Mechanical life cycles 3000000 Functions Modular version 2U Minimum AC voltage No Maximum AC voltage No Phase loss Yes | Relay state | | | energised De- energises at |
| Maximum switching voltageVAC400IEC Conventional free air thermal current IthA8UL/CSA and IEC/EN 60947-5-1 designationB300Electrical life (with rated load)cycles100000Mechanical lifecycles3000000FunctionsModular version2UMinimum AC voltageNoMaximum AC voltageNoPhase lossYes | Contact arrangement | | | |
| IEC Conventional free air thermal current Ith A 8 UL/CSA and IEC/EN 60947-5-1 designation Electrical life (with rated load) Mechanical life Cycles 100000 Mechanical life Cycles 3000000 Functions Modular version Moinimum AC voltage No Maximum AC voltage No Phase loss Yes | | | | |
| UL/CSA and IEC/EN 60947-5-1 designation Electrical life (with rated load) Mechanical life cycles 3000000 Functions Modular version Minimum AC voltage No Maximum AC voltage No Phase loss B300 cycles 3000000 Torcles 3000000 Rechanical life cycles 3000000 Torcles 3000000 Auximum AC voltage No Yes | | | VAC | 400 |
| Electrical life (with rated load) Mechanical life Cycles 3000000 Functions Modular version Minimum AC voltage No Maximum AC voltage No Phase loss 100000 Cycles 3000000 Eurocions Auximum AC voltage No Yes | | | Α | |
| Mechanical life cycles 3000000 Functions Modular version 2U Minimum AC voltage No Maximum AC voltage No Phase loss Yes | UL/CSA and IEC/EN 60947-5-1 designation | | | B300 |
| Functions Modular version Minimum AC voltage No Maximum AC voltage No Phase loss Yes | | | | |
| Modular version2UMinimum AC voltageNoMaximum AC voltageNoPhase lossYes | | | cycles | 3000000 |
| Minimum AC voltage No Maximum AC voltage No Phase loss Yes | | | | 011 |
| Maximum AC voltage No Phase loss Yes | | | | |
| Phase loss Yes | <u> </u> | | | |
| | | | | |
| Incorrect phase sequence Yes | | | | |
| · · · · · · · · · · · · · · · · · · · | Incorrect phase sequence | | | Yes |

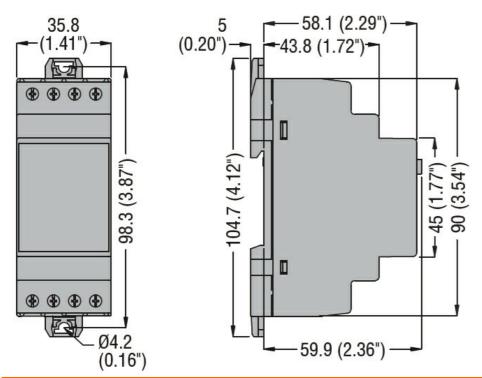
ENERGY AND AUTOMATION

VOLTAGE MONITORING REALY FOR THREE-PHASE SYSTEM, WITHOUT NEUTRAL, PHASE LOSS AND INCORRECT PHASE SEQUENCE, 380...600VAC 50/60HZ

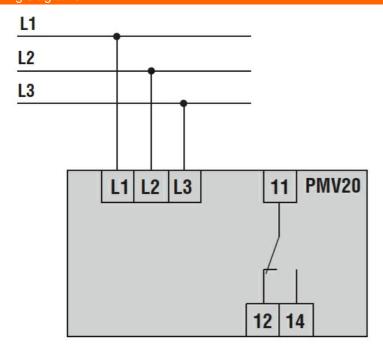
| Indications | Asymmetry | | | | No |
|---|---------------------------------------|--|-----|--------------|--------------|
| Production Pr | Indications | | | | |
| Terminals type | | | | | power on and |
| Tightening torque for terminals | | | | | |
| Max Nm 0.8 max lbin 7 | | | | | Screw |
| Conductor cross section | Tightening torque f | or terminals | | | |
| Conductor cross section | | | max | | |
| AWG/Kcmil | | | max | Ibin | 7 |
| Max | Conductor cross se | ection | | | |
| Nax | | AWG/Kcmil | | | |
| IEC | | | min | AWG | 24 |
| Max min mm² 0.2 Max mm² 4 | | | Max | AWG | 12 |
| Max mm² 4 Insulations Insulation voltage Uimp V 600 Rated impulse withstand voltage Uimp kV 6 Operating frequency withstand voltage kV 4 Ambient conditions Temperature Temperature min °C -20 max °C +60 Storage temperature min °C -30 max °C +80 Housing Execution (n° of modules) Z Material Self-extinguishing polyamide Mounting IEC degree of protection Dimensions (W x H x D) IP40 on front; IP20 at terminals Dimensions (W x H x D) mm 35.8 x 104.7 x 64.9 Weight g | | IEC | | | |
| Rated insulation voltage Ui | | | min | mm² | 0.2 |
| Rated insulation voltage Ui V 600 Rated impulse withstand voltage kV 6 Operating frequency withstand voltage kV 4 Ambient conditions Temperature | | | Max | mm² | 4 |
| Rated impulse withstand voltage Uimp kV 6 Operating frequency withstand voltage kV 4 Ambient conditions Temperature | Insulations | | | | |
| Rated impulse withstand voltage Uimp kV 6 Operating frequency withstand voltage kV 4 Ambient conditions Temperature | Rated insulation vo | ltage Ui | | V | 600 |
| Operating frequency withstand voltage kV 4 Ambient conditions Temperature | | | | kV | 6 |
| Ambient conditions Temperature | · · · · · · · · · · · · · · · · · · · | | | kV | |
| Temperature | | <u>. </u> | | | |
| Operating temperature min or company of company or | | | | | |
| min °C -20 max °C +60 | | Operating temperature | | | |
| Max or C +60 | | oporating temperature | min | °C | -20 |
| Storage temperature min °C -30 max °C +80 Housing Execution (n° of modules) Material Mounting IEC degree of protection Dimensions (W x H x D) Storage temperature min °C -30 max °C +80 Self-extinguishing polyamide Self-extinguishing polyamide 155mm DIN rail (IEC/EN 60715) IP40 on front; IP20 at terminals 164.9 Weight | | | | | |
| Material min °C -30 max °C +80 | | Storage temperature | Пах | | 100 |
| max °C +80 Housing Execution (n° of modules) 2 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 120 | | Otorage temperature | min | °C | -30 |
| Housing Execution (n° of modules) 2 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 120 | | | | | |
| Execution (n° of modules) 2 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 120 | Housing | | max | | 100 |
| 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 120 | | odules) | | _ | 2 |
| Mounting 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 120 | Execution (ii or iii | oddies) | | | |
| IEC degree of protection IP40 on front; IP20 at terminals | Material | | | | |
| Dimensions (W x H x D) $ \begin{array}{c} $ | Mounting | | | | |
| Dimensions (W X H X D) 64.9 Weight g 120 | IEC degree of prot | rection | | | |
| <u> </u> | Dimensions (W x F | 1 x D) | | mm | |
| <u> </u> | Weight | | | g | 120 |
| | | n)] | | | |

ENERGY AND AUTOMATION

VOLTAGE MONITORING REALY FOR THREE-PHASE SYSTEM, WITHOUT NEUTRAL, PHASE LOSS AND INCORRECT PHASE SEQUENCE, 380...600VAC 50/60HZ



Wiring diagrams



Certifications and compliance

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

3/4





ENERGY AND AUTOMATION

VOLTAGE MONITORING REALY FOR THREE-PHASE SYSTEM, WITHOUT NEUTRAL, PHASE LOSS AND INCORRECT PHASE SEQUENCE, 380...600VAC 50/60HZ

ETIM classification

ETIM 8.0

EC001438 -Voltage monitoring relay