Prok dv's®

An ISO 9001 : 2015 Company

DIGITAL UNDER-OVER VOLTAGE RELAY DMPVR SERIES

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ISO 9001 BUREAU VERITAS Certification

UKAS QUALITY MANAGEMENT

NABCB

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DIGITAL MICROCONTROLLER BASED THREE PHASE OVER VOLTAGE (OV) AND UNDER VOLTAGE (UV) RELAY

IEEE Device code- 27, 47, 59

Features

- User friendly setting Parameters
- Monitor the line to line voltages continuously
- Built in on delay and trip delay time settings
- Field configurable reset gap voltage
- Direct display of line to line voltages in 3 Phase models
- Set value of Under Voltage (UV) and Over Voltage (OV) in terms of Set voltage directly
- Phase fail and phase reversal protection in 3 phase models
- Indication of faults through LED and LCD
- Independent potential free output contacts for Under Voltage (UV)/ph. fail ,Ph reversal and Over Voltage(OV)

Applications

- Protection of Synchronous and induction motor of any HP Rating
- Protection of Generators, AMF switched Board
- Transformer Feeder Panel
- Distribution Boards
- Voltage Regulators
- Protection of UPS and Single phase application

Specifications

1. Under Voltage Range:- 070V to 105V in steps of 1V for 110V L-L (Un)
   300V to 410V in steps of 1V for 415V L-L (Un)
   150V to 230V in steps of 1V for 240V P-N (Un)

2. Under Voltage trip time: - 0.1 to 20 sec in steps of 0.1 sec

3. Over Voltage (OV) Range:- 115V to 140V in steps of 1V for 110V L-L (Un)
   420V to 500V in steps of 1V for 415V L-L (Un)
   250V to 300V in steps of 1V for 240V P-N (Un)

4. Over Voltage (OV) trip time:- 0.1 to 20 sec in steps of 0.1 sec

5. Reset gap for Under Voltage (UV)/Over Voltage (OV):- 5 to 20V in steps of 5V

6. On Time delay: - 1 to 30 sec in steps of 1sec

7. Trip time for phase fail & phase reversal: 2 sec

8. Auxiliary supply - 85-275VAC/DC

Note: Under Voltage (UV) Relay energize /de energize option for factory setting,
Default: Under Voltage (UV) De Energize

Over Voltage (OV) Relay energize /de energize option for factory setting,
Default: Over Voltage(OV) De Energize

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SETTING PROCEDURE

* Refer to the wiring diagram.

·Connect the Aux supply (85-275V AC/DC) & 3 Phase sensing voltage to the DIGITAL MICROCONTROLLER BASED THREE PHASE OVER VOLTAGE (OV) AND UNDER VOLTAGE (UV).

Display shows for a while …. | Vltg Rly
3PH V2.0 |

And then display line to neutral voltages

VRY	VYB	400	400
VBR	L-L	400	V L-L

Press ▲ key & ▼key simultaneously and release display shows- menu for Over Voltage (OV) Select the desired Over Voltage (OV) in the range of 420 to 500v | OV =460V
420-500V |

Use ▲ or ▼ key to enter the required Over Voltage (OV) voltage directly in steps of 1V, press SET key to save the value and move on to the next parameter.

Now display shows -menu for Under Voltage

Select the desired Under Voltage in the range of 300 to 410V | UV =360V
300-410V |

Use ▲ or ▼ key to enter the required Under Voltage (UV) voltage directly in steps of 1V, press SET key to save the value and move on to the next parameter.

Now Display shows - menu for Reset Gap for Over Voltage (OV)/Under Voltage (UV)(RG - Reset Gap) | RG=05.0V
5-20V |

Use ▲ or ▼ key to enter the required Reset Gap voltage value in steps of 5V, press SET keyto save the value and move on to the next parameter.

Display shows -menu for On Time Delay for OD(OD- On Time Delay) | OD = 10 S
1 - 30 S |

Use ▲ or ▼ key to enter the required On delay in steps of 1 S, press SET key to save the value and move on the next parameter.

Display shows - menu for Time delay for Under Voltage (UV)(UTT- Under Voltage Trip Time)

Use ▲ or ▼ key to enter the required Trip delay for Under Voltage (UV) in steps of 0.1 S, press SET key to save the value and move on the next parameter | UTT = 5.0
0.1- - 20 S |

Display shows – menu for Time delay for Over Voltage (OV)(OTT- Over Voltage (OV)er Voltage Trip Time) | OTT = 5.0
0.1 - 20 S |

Use ▲ or ▼ key to enter the required Trip delay for Over Voltage (OV) in steps of 0.1 S, press SET key to save the value.

Display shows all the three phase voltages.(when all 3phase sensing voltages are connected)

400	400
400	V L-L

This completes the setting of the voltage relay.

In the absence of sensing input voltages display shows by indicating the Under Voltage (UV) LEDIf the sensing voltage input VRY, VYB, VBR

UV TRIP BR< 25

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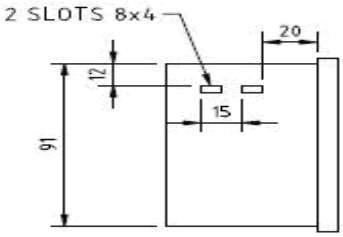
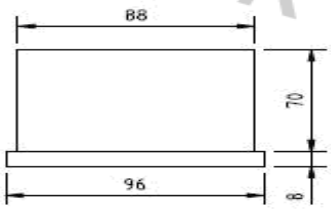
Mechanical Dimensions DIGITAL MICROCONTROLLER BASED THREE PHASE OVER VOLTAGE (OV) AND UNDER VOLTAGE (UV) RELAY

FLUSH MOUNTING

FRONT VIEW



SIDE VIEW

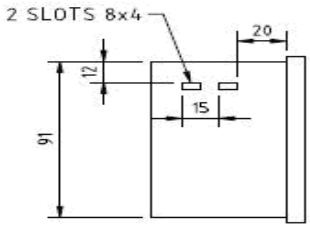


TOP VIEW

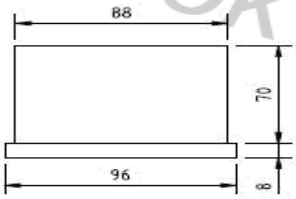
DIN MOUNTING

NOTE: ALL DIMENSIONS ARE IN MM
TOLERANCE:- ± 1MM

FRONT VIEW



SIDE VIEW



TOP VIEW

NOTE: ALL DIMENSIONS ARE IN MM
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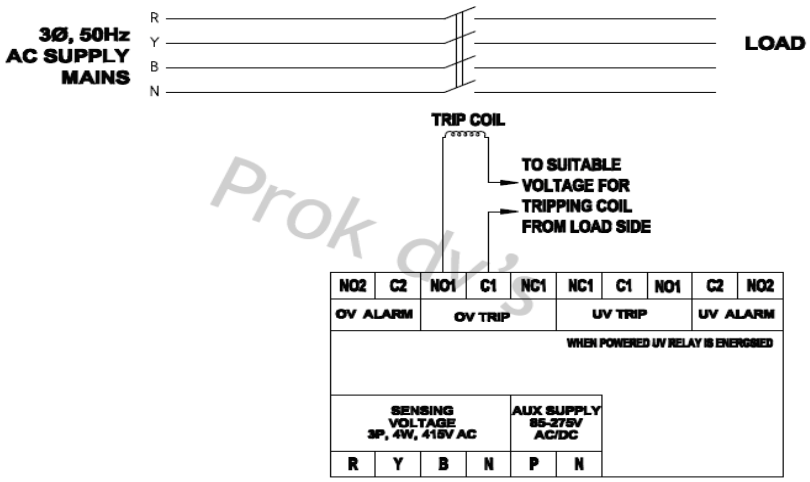
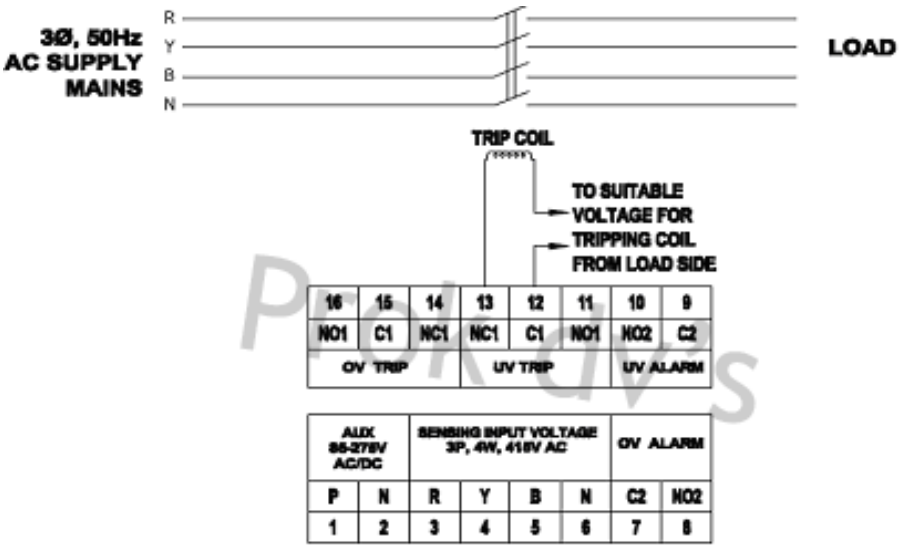
Wiring Diagram DIGITAL MICROCONTROLLER BASED THREE PHASE OVER VOLTAGE (OV) AND UNDER VOLTAGE (UV) RELAY

FLUSH MOUNTING MCCB/ACB/CONTACTORS



DIN MOUNTING MCCB/ACB/CONTACTORS



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