

# VOLTAGE RELAY (IDMT/DMT) $\mu$ P- BASED MPVD/DMPVD - series

**Prok dv's**<sup>®</sup>

An ISO 9001-2008 certified Company

Total reliability in power system protection & monitoring

... a mark of quality



## FEATURES:

- ◆ Accurate and reliable measurement of True RMS Line to Line voltages using DFT
- ◆ Display of voltage magnitudes, Healthy/Fault status and set parameters using 8 character 2 line LCD
- ◆ Wide range for Selection of System voltages
- ◆ User configurable DMT or IDMT characteristic Trip selection for Under & Over voltage conditions
- ◆ Low set & High set features incorporated for IDMT with High pick up to drop out ratio
- ◆ Two Independent potential free output contacts for Faults
- ◆ Wide range of Universal input Auxiliary supply(85-275V Ac/Dc)
- ◆ Healthy, Fault and Trip Status provided through LED visual indication.
- ◆ Auto Reset provided on Healthy voltage resumption

## APPLICATIONS:

- ◆ Protection of Motors and Generators
- ◆ Main or Back Up protection for Voltage abnormal condition
- ◆ For Detection of Under or Over Voltage, Phase fail, Phase Reversal, Unbalance status in power plants and distribution system.
- ◆ Protection of Transformer panel & capacitor control panel

## SPECIFICATIONS:

Rated System Voltage (Un)  
Tripping characteristic curve for Under & Over voltage

Over voltage range low set (OVL)

Time dial multiplier setting (k) TMS for IDMT  
Over voltage range high set (OVH)

### Note

Over Voltage High set time  
Under voltage range low set(UVL)

Time dial multiplier setting (k) TMS for IDMT  
Under voltage range high set(UVH)

### Note

Under Voltage High set time  
Definite minimum time (DMT) for over voltage (0 to 300) sec's in steps of 1 Sec, Default DMT set to 3.0 Sec  
Definite minimum time (DMT) for under voltage (0 to 300) sec's in steps of 1 Sec, Default DMT set to 3.0 Sec  
Pick up for Over voltage fixed- Set over voltage in % of (Un) + 101% of (Un)  
Drop out for Over voltage fixed- Set over voltage in % of (Un) - 99% of (Un)  
Pick up for Under voltage fixed- Set under voltage in % of (Un) - 99% of (Un)  
Drop out for Under voltage fixed- Set under voltage in % of (Un) + 101% of (Un)

### Note

Trip time for phase reversal  
Un Balance voltage (line to line) Range

Under voltage relay/phase failure

Over voltage /phase reversal relay  
Out put relay

AUX. Voltage  
Display  
LED  
Mounting  
Dimensions

Gross Weight  
Net Weight

: 380 V or 400V or 415V or 433V- Default (Un) Set to 415V  
: IDMT or DMT- Default set to DMT  
: For IDMT -Trip characteristic selection for Under & Over voltages  
: 101% – 130% of Rated Voltage (Un) in steps of 1% Default OVL % set to 110%of (Un)  
: Ranges from 0.1 to 1.0 in steps of 0.1 Default TMS set to 0.5  
: 101% – 130% of Rated Voltage (Un) in steps of 1% Default OVH % set to 120%of (Un)  
: OVH shall be set > than OVL in %of (Un)  
: (0 to 5.0) sec's in steps of 0.1 Sec – Default set to 1.0 Sec  
: 50% – 99% of Rated Voltage (Un) in steps of 1% Default UVL % set to 90%of (Un)  
: Ranges from 0.1 to 1.0 in steps of 0.1 Default TMS set to 0.5  
: 50% – 99% of Rated Voltage (Un) in steps of 1% Default UVH % set to 70%of (Un)  
: UVH shall be set < than UVL in %of (Un)  
: (0 to 5.0) sec's in steps of 0.1 Sec – Default set to 1.0Sec For DMT  
: Pick up & Drop out applicable for both IDMT & DMT for narrow Reset bandwidth Ranges from 6 to 8 Volts  
: 2.0 Sec fixed Trip time delay for phase failure- 0.1 sec fixed.  
: 20V-100V Default: 50V Trip time for Unbalance >Set Unbalance Voltage line to line- 0 to 5.0 sec Default: 2 sec  
: By default de energized (Factory setting) under healthy conditions (with AUX. voltage connected)  
: de-energized under healthy condition (with AUX. voltage connected)  
: 250 V, 8 A AC, / 30V, 8A DC – two change over, potential free output contacts  
: 85-275VAC/DC Universal input  
: 8 chars 2 line LCD with backlit  
: For Visual indications of healthy, Fault & Trip status.  
: Flush or Din rail mounting  
: 96\*96\*65 mm ( w \* h \* d) (flush mounting)  
: 79\*93\*73 mm ( w \* h \* d) (din mounting)  
: 0.320kg  
: 0.300kg

## Note:

The Unit consists only two Relays having potential free contacts and each Relays can be configured for various faults.  
For Ex: 1) Relay 1-Under Voltage (Low set & High set) / Phase – Failure/  
Phase - Reversal / Phase - Unbalance.  
2) Relay 2-Over Voltage (Low set & High set).

**Any other combination can be given as per the Client requirements.**

