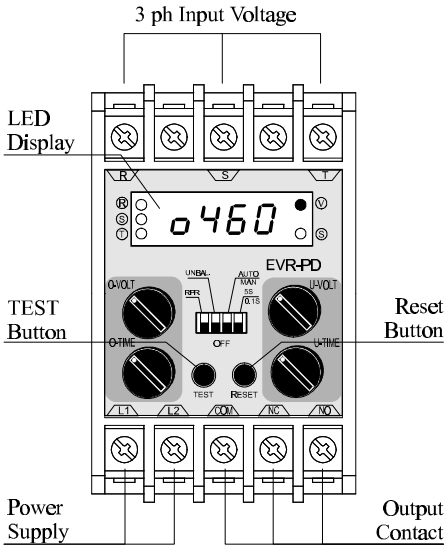
EVR-PD

Digital 3 phase Voltage Relay

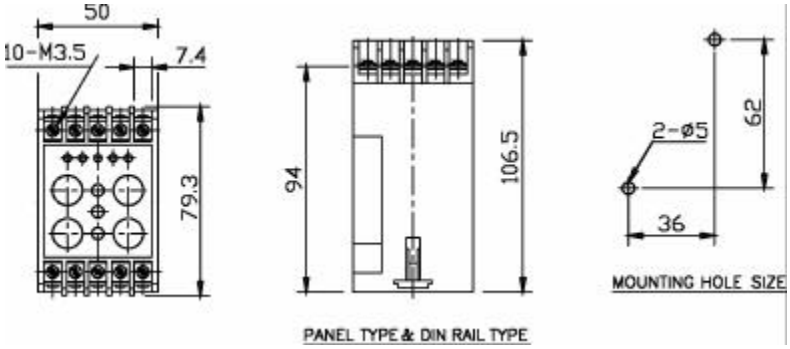
Introduction

- Microprocessor based digital display
- Over voltage and Under voltage protection
- Independent voltage setting and trip delay adjustment
- Phase Loss, Phase Reversal and Voltage Unbalance protection
- Definite trip time characteristic
- Low energy consumption / Compact design
- Ambient insensitive

Relay Fascia



Dimension



Specification

Voltage setting range	Type		Under voltage	Over voltage
	220		3 phase 160～240V	3 phase 220～300V
	440		3 phase 300～440V	3 phase 380～500V
Operating Time(O-Time)			0.5～10 sec, Adjustable	
Phase Loss(PL)			2 sec	
Reverse Phase(RP)			0.5 sec	
Voltage Unbalance			±5% deviation between the line voltages	
Control power	220		85～250VAC/DC 50/60Hz	
	Others		Option	
Operation characteristic			Definite	
Output	Contact		1-SPDT 3A/250VAC Resistive	
	Status		Normally energize	
Test			confirmation of the preset value	
Reset			Manual/Auto. selectable with DIP switches	
Operation Characteristic			Definite	
Display	Normal		Shown the 3 phase line voltage in turn	
	Trip		Shown the cause of trip and voltage	
Atmosphere	Temp.	Store	-30℃～80℃	
		Operation	-25℃～70℃	
	Humidity		45～85% RH Non-condensing	
Tolerance	Voltage		±5V	
	Time		±10%	
Mounting			35mm Din Rail	

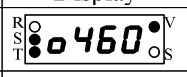
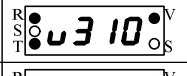
DIP SW. Selection Guide

Function	Selection	
	On	Off
RPR(Reverse phase protection)	Enable	Disable
Unbalance	Enable	Disable
Auto/Manual(Reset)	Auto reset	Manual reset
5 sec/1 sec (Auto reset time)	5 sec delay reset after trip when auto reset is selected	1 sec delay reset after trip when auto reset is selected

How to setting

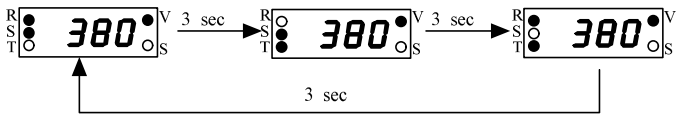
1. **Over Voltage setting**
   Turn the O-VOLT potentiometer slowly CCW until the "o" letter flashes and voltage indicates on the screen, where the input voltage is indicated. set the desired voltage.
2. **O-Time (Over voltage trip delay time)**
   Set the trip delay time when the line voltage is over than preset over voltage setting with O-TIME potentiometer.
3. **Under Voltage setting**
   Set the U-VOLT potentiometer slowly CW until the desired trip level is indicated on the screen.
4. **U-Time (Under voltage trip delay time)**
   Set the trip delay time when the line voltage is less than preset under voltage with U-TIME potentiometer.

Protection and Indication

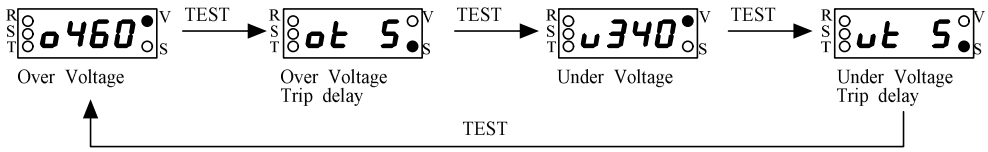
Function	Display	Cause of Trip	Description	Operation Delay
Over Voltage		Operated by max. voltage 460V on S-T phase	Input voltage exceeds preset O-Volt	Preste O-TIME
Under Voltage		Operated by min. voltage 310V on R-T phase	Input voltage drops in preset U-Volt	Preset U-TIME
Phase Loss		Operated by phase loss on T phase		2 sec
Reverse Phase		Operated by phase reversal		0.5 sec
Voltage Unbalance		Operated by voltage unbalance	Voltage deviation is over than 5%	3 sec

DIGITAL 3 phase volt meter

3 phase voltages are displayed in sequence on the LED display

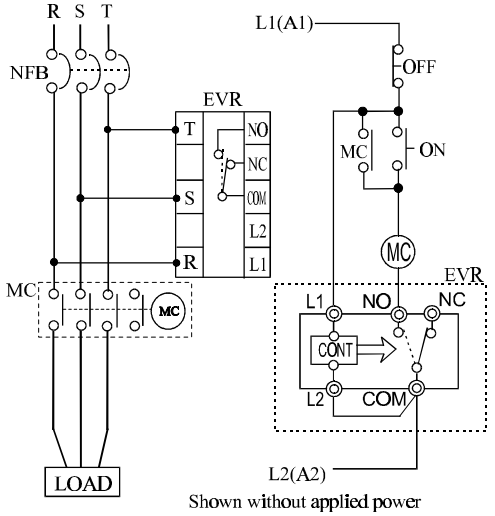


DISPLAY OF SETTING



When the pressing of TEST button, the preset amount is displayed in sequence as shown.

Typical Application Diagram



Shown without applied power

Ordering Information

EVR-PD - 440 - N - 220
① ② ③ ④

① Model
- ▶ Digital 3 phase voltage relay

② 3 phase input voltage
- ▶ 220 : 160～300VAC
- ▶ 440 : 300～500VAC

③ Contact
- ▶ N : Normally Energized.

④ Power supply
- ▶ 220V : 85～250VAC/DC
  (The other voltage is optional)