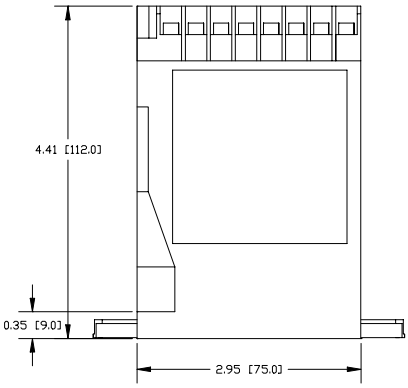
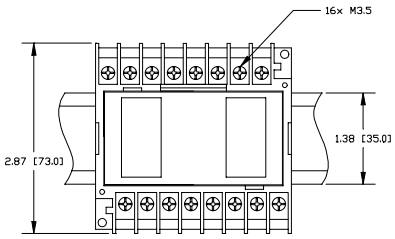
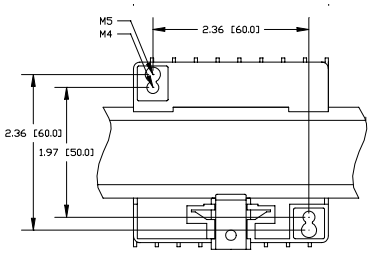
CII Technologies™
advanced control electronic solutions

Voltage Sensitive Relays

Kilovac - WD2759-XXX Over/Undervoltage

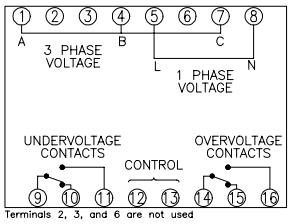






Notes:

1. Snap Mounting for DIN rail (DIN EN 50022-35) or Screw Mounting M4 (#8) or M5 (#10)
2. Max Conductor Size:
   2x 14 awg. (2.5mm^2) solid to DIN 46288 or
   2x 16 awg. (1.5mm^2) stranded w/ end sleeves



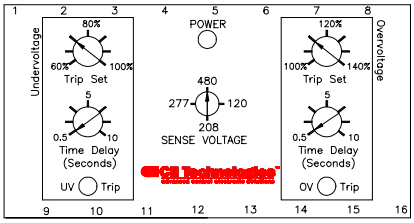
Connections

Function: 27/59

- ANSI/IEEE C37.90-1978
- DIN EN50022-35
- UL Recognized

Operation:

WD2759 Series ac voltage sensing relays provide voltage monitoring and protection in ac systems from 50 to 400 Hz. Sensing voltages, number of phases, over and undervoltage setpoint, and time delays are user configured. WD2759 voltage relays operate when the externally adjustable trip point is reached. An external time delay control is provided with an adjustment of .5 to 10 seconds. This time delay may be used to prevent false tripping when there are slight variations in the voltage supply. On overvoltage the output relay energizes when the input signal exceeds the trip point. On undervoltage the output relay de-energizes when the input signal goes below the trip point. A green LED indicates power to the relay. Red LED lights indicate the state of the undervoltage and overvoltage trips.



Controls

PRODUCT SPECIFICATIONS

Part Number	Unit	WD2759
Nominal Operating Voltage	Vac	120, 208, 277 or 480, selectable
Maximum Sensing Voltage	Vac	700
Nominal Frequency Range	Hz	50-400
Contact Form		C (1 each for UV and OV)
Contact Ratings	A	5 A resistive at 240 Vac
		5 A resistive at 30 Vdc.
Time Delay Adjustment	s	0.5 to 10
Isolation from Control to Sense Inputs	Vac	2500
Operating Temperature Range	°C	-40 °C to +60 °C
Mechanical Life (operations)		1 x 10^7
Shock	g	10
Vibration		0.062" DA at 10-55
Weight	lb.	.9 (.4 kg)

SENSE VOLTAGE

Voltage (nominal)	120	208	277	480
UV Adj. Range	72-120	125-208	166-277	288-480
OV Adj. Range	120-168	208-291	277-388	480-672

CONTROL VOLTAGE

Model WD2759	-001	-002	-003
Input Voltage Vdc	18 to 54	13.5 to 32	100 to 200
Input Voltage Vac	--	--	100 to 140
Power Consumption	2.5 VA (Max.)		

PART NUMBER SELECTION

Sample Part No. WD2759-002

Type:
WD2759 - Over/Undervoltage

Control Voltage
001 - 18 to 54 Vdc
002 - 13.5 to 32 Vdc
003 - 100 to 200 Vdc or 100 to 140 Vac

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Instructions for WD2759-XXX

Voltage Sensitive Relays

INSTALLATION

Wilmar WD2759 Voltage Relays mount on standard DIN rails (DIN-EN 50022) or surface mounted using screws. To mount the relay on a DIN rail hook the top edge of the cutout on the base of the case over one edge of the DIN rail then press the opposite side of the cutout containing the release clip over the opposite side of the DIN rail. To remove or reposition the relay, lever the release clip and move the relay as required. WD2759 relays should be installed in a dry location where the ambient temperature does not exceed the operating temperature range.

MAINTENANCE

Wilmar Protective Relays are solid-state devices that require no maintenance. If the relay requires repair contact CII Technologies – Kilovac and Wilmar Products for return authorization.

CALIBRATION

The calibration marks on the faceplate have a maximum error of 10% and are provided only as guides. Proper calibration requires using an accurate voltmeter in parallel with the input signal. Use the following procedure to calibrate your relay.

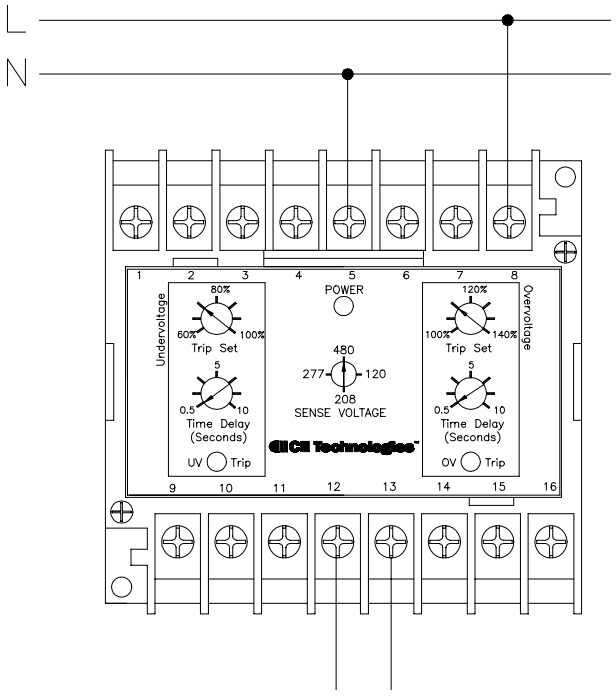
OVER VOLTAGE

1. Remove cover.
2. Adjust the TRIP SET control fully clockwise (CW) and the TIME DELAY control fully counterclockwise (CCW).
3. Apply the desired trip voltage to the relay.
4. Slowly adjust the TRIP SET control CCW until the relay trips.
5. Remove the applied voltage (do not change the voltage level) and set the TIME DELAY control to the desired time delay.
6. Apply the trip voltage to the relay and measure the time to trip.
7. Adjust the TIME DELAY and repeat steps 4 and 5 until you have the desired time delay.

UNDER VOLTAGE

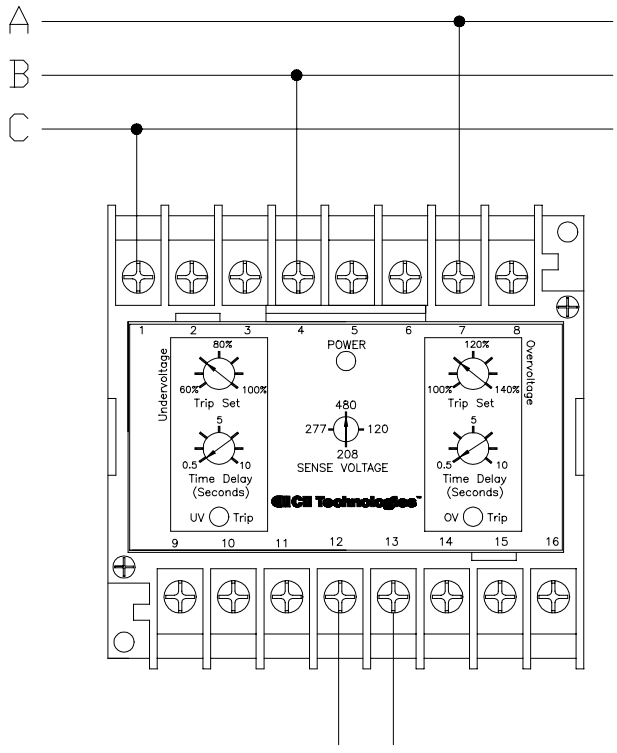
1. Remove cover.
2. Adjust the TRIP SET control fully CCW and the TIME DELAY control fully CCW.
3. Decrease the applied sensing voltage from the nominal value until the desired tripping voltage is reached.
4. Slowly adjust the TRIP SET control CW until the relay trips.
5. Set the TIME DELAY control to the desired time delay and apply nominal voltage to the relay.
6. Step down the applied voltage from nominal to a level jest below the trip level set in Step 3 and measure the time delay.
7. Adjust the TIME DELAY and repeat steps 4 and 5 until the desired time delay is achieved.

SINGLE PHASE INPUT



CONTROL
BI–DIRECTIONAL AC OR DC INPUT

3 PHASE INPUT



CONTROL
BI–DIRECTIONAL AC OR DC INPUT