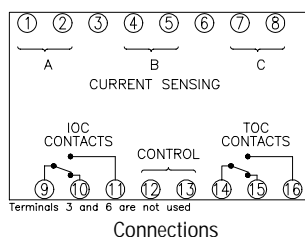
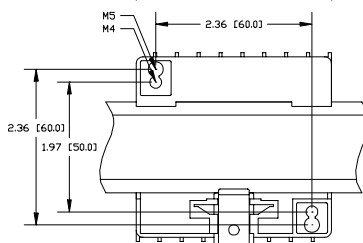
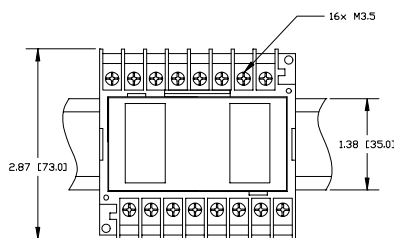
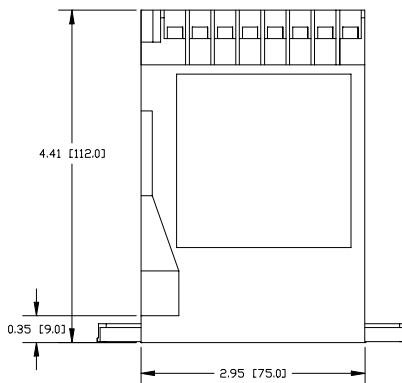


**Kilovac - WD5051-3-XXX Over Current  
Din Rail Mounting**



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<sup>2</sup>) solid to DIN 46288 or  
2x 16 awg. (1.5mm<sup>2</sup>) stranded w/ end sleeves

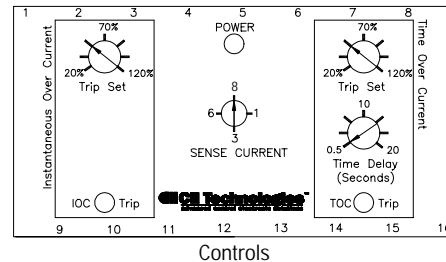
**Function:** 5051

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



**Operation:**

WD5051-3 Series ac current sensing relays provide current monitoring and protection in ac systems from 50 to 400 Hz. Nominal Sensing Current, Instantaneous Over Current setpoint, Time Over Current setpoint, and Time Over Current time delay are user configured. WD5051 current relays operate when the externally adjustable trip point is reached. An external time over current time delay control is provided with an adjustment of .5 to 20 seconds. This time delay may be used to prevent false tripping when there are slight variations in the sensed current. With control power applied, the Instantaneous Over Current (IOC) contacts pick-up when the input signal exceeds the IOC trip setpoint. Similarly, with control power applied, the Time Over Current (TOC) contacts pick-up after the preset time delay when the Sense Current rises above the TOC trip setpoint. The IOC contacts may also be configured to function as an under current relay. A green LED indicates power to the relay. Red LED lights indicate the state of the IOC and TOC trips.



**PRODUCT SPECIFICATIONS**

Part Number	Unit	WD5051-3
Sense Current Full Scale .....	A	1, 3, 6 or 8, selectable
Maximum Sensing Current .....	A	10A Continuous, 30A for 10 seconds 60A for 2.5 seconds, 100A for .9 seconds
Nominal Frequency Range .....	Hz	50-400
Contact Form .....	C	(1 each for IOC and TOC)
Contact Ratings .....	A	5 A resistive at 240 Vac 5 A resistive at 30 Vdc.
TOC Time Delay Adjustment .....	s	0.5 to 20
IOC Operate Time (max.) .....	s	.2
Isolation from Control to Sense Inputs ....	Vac	2500
Operating Temperature Range .....	°C	-40 °C to +60 °C
Mechanical Life (operations) .....		1 x 10 <sup>7</sup>
Shock .....	g	10
Vibration .....		0.062" DA at 10-55
Weight .....	lb.	.9 (.4 kg)

**SENSE CURRENT**

Current (nominal)	1	3	6	8
IOC	0.2 to 1.2	0.6 to 3.6	1.2 to 7.2	1.6 to 9.6
TOC	0.2 to 1.2	0.6 to 3.6	1.2 to 7.2	1.6 to 9.6

**CONTROL VOLTAGE**

Model WD5051-3	-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. WD5051-3-002

Type: \_\_\_\_\_  
WD5051-3 3Ph Overcurrent

Phase: \_\_\_\_\_  
3 - 3 Phase

Control Voltage: \_\_\_\_\_  
001 - 18 to 54 Vdc  
002 - 13.5 to 32 Vdc  
003 - 120 V ac/dc

# Instructions for WD5051-3-XXX

## Current Sensitive Relays

### INSTALLATION

Wilmar WD5051 Over Current 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. WD5051 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 Division for return authorization.

### CALIBRATION

The calibration marks on the faceplate are provided only as guides. Proper calibration requires using an accurate ammeter in series with the current source. Use the following procedure to calibrate your relay:

#### OVERCURRENT

1. Remove the cover.
2. Adjust the TRIP SET control fully clockwise (CW) and the TIME DELAY control (TOC only) fully counterclockwise (CCW).
3. Apply the desired trip current to the relay.
4. Slowly adjust the TRIP SET control CCW until the relay trips.
5. Remove the applied current (do not change the current level). Set the TIME DELAY (TOC only) control to the desired time delay.

