

AC/DC OVERCURRENT CAP SERIES



- ◆ Equivalent to LIRT and DIRT products from Crouzet
- ◆ Monitors for overcurrent conditions
- ◆ Each unit can monitor three current ranges for both AC & DC
- ◆ External CT can be used to extend ranges
- ◆ Adjustable Pick-up & Drop-out Setting
- ◆ Adjustable Sensing Delay on Power-up
- ◆ Non-Latching & Latching modes
- ◆ LED indicates relay status
- ◆ 11 Pin Plug-in socket can be DIN rail-mounted or panel-mounted
- ◆ 10A SPDT output contacts



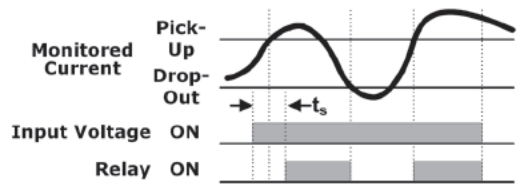
The CAP Series current sensing relay is used to detect an AC or DC overcurrent condition. It has two operating modes: non-latching or latching. Each relay has three top-mounted potentiometers: one for selecting the pick-up setting within the selected monitored current range (“Threshold”), one for selecting the drop-out setting of 5-50% below pick-up setting (“Hysteresis”), and one for setting the start-up sensing delay (t_s). This delay, which is adjustable from 0.1 – 10 seconds, inhibits energization of the output relay during the start-up period.

CAP Series relays have three built-in current ranges (see right) to monitor both AC & DC current. Each one is easily selectable by connecting to the corresponding terminal and to the COM terminal (see Wiring Diagram below).

DC	AC
5 – 100mA	3.5 – 70.7mA
0.05 – 1A	0.035 – 0.707A
0.5 – 10A	0.35 – 7.07A

Non-Latching Mode:

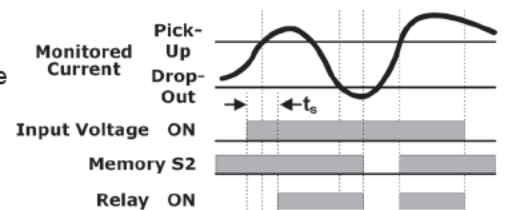
The unit will operate in the non-latching mode if no circuit is completed across pins 9 & 11. After input voltage is applied (LED is Green) and the start-up sensing delay (t_s) of 0.1 – 10 seconds is completed, the relay will energize



when the monitored current is above the adjustable pick-up setting (“Threshold”). The LED will be Red. It will de-energize when the monitored current goes below the adjustable drop-out setting (“Hysteresis”) by 5-50% of the selected pick-up setting or when input voltage is removed. The LED will be Green.

Latching Mode:

The unit will operate in the latching mode if a N.C. contact (Memory S2) is connected across pins 9 & 11 (see Wiring Diagram). After input voltage is applied (LED is Green) and the start-up sensing delay (t_s) of 0.1 – 10 seconds is completed, the relay will energize when the monitored



current is above the adjustable pick-up setting (“Threshold”). The LED will be Red. It will de-energize when the monitored current goes below the adjustable drop-out setting (“Hysteresis”) by 5-50% of the selected pick-up setting and the N.C. contact (Memory S2) is opened, or when input voltage is removed. The LED will be Green. It is recommended to set the Hysteresis at 5% when in the latching mode.

INPUT VOLTAGE	CATALOG NUMBER	WIRING/SOCKET
24V AC	CAP10AD68	11 Pin 70170-D
120V AC	CAP10AD62	

DIAGRAM 221

Sockets & Accessories available

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APPLICATION DATA

Input Voltage Tolerance: +10/-15% of nominal at 50/60 Hz.

Load (Burden): Less than 5VA

Current Settings:

Pick-up (Threshold): Adjustable throughout monitored current range

Drop-out (Hysteresis): Adjustable from 5-50% below pick-up setting

Monitored Current Ranges:

DC	AC
5 – 100mA	3.5 – 70.7mA
0.05 – 1A	0.035 – 0.707A
0.5 – 10A	0.35 – 7.07A

Response Times:

Pick-up & Drop-out: Fixed 100ms

Sensing delay on power-up (t_s): 0.1 – 10 seconds

Output Contacts:

10A @ 240V AC / 7A @ 28V DC SPDT, 1/4 HP @ 120V AC (N.O.)

Life:

Mechanical: 10,000,000 operations

Full Load: 100,000 operations

Temperature: Operating: -28° to 55° C (-18° to 131° F)

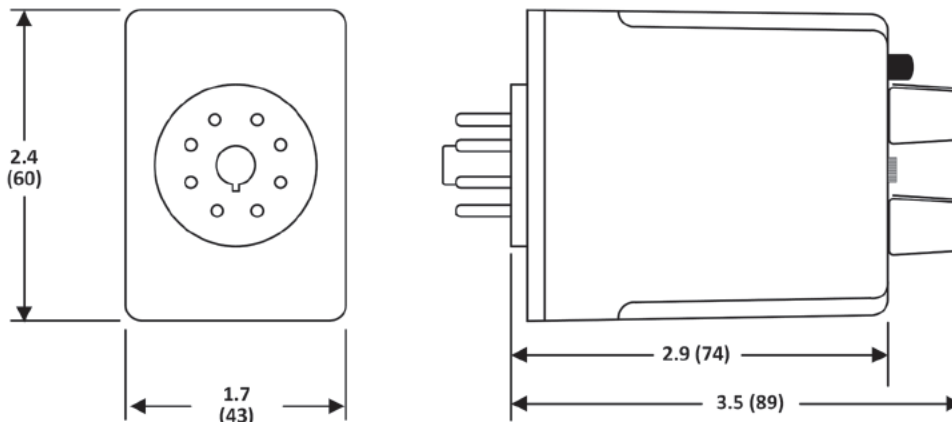
Storage: -40° to 85° C (-40° to 185° F)

Indicator LED: Green when Input Voltage is applied; Red when Relay is energized

Mounting: Requires an 11 pin octal socket (Macromatic 70170-D) that can be mounted on 35mm DIN rail or panel-mounted with two screws

Approvals:  
File #E109466
with Appropriate Macromatic Socket

DIMENSIONS



All Dimensions in
Inches (Millimeters)