EAZY-IV-U3 Controller User Manual

Thank you for using this product of our company, the "EAZY-IV-U3" controller is compatible with a variety of operating modes, LED digital displays, procedures for intelligent control, has a voltage detection channel, a set of relay switch output (normally open and normally closed), the time relay can be controlled by voltage detection to achieve a variety of functions.

In case of any printing or translation error, we apologize for the inconvenience.

Product Features:

Operating modes:

P-1: Relay close delay time and display off setting

P-2: Voltage Control Timer- A (release first)

P-3: Voltage Control Timer- B (close first)

P-4: Voltage range control

Timing range: 0-999 seconds

Voltage display range: DC 0-99.9 V

Voltage detection error: ± 0.1V

Operating Power: DC 8~35V

Relay parameters:

A set of conversion (normally open and normally closed)

Contact load: 10A/277V AC or 10A/30V DC

Contact resistance: ≤ 100mΩ (1A 6VDC)

Mechanical durability: 10 millions

Electricity durability: > 100,000 (10A-250VAC)

Operating Temperature: -40 ~ 85℃

Set display shut, the minimum current values are 7mA/12V (delay released)

The pre-set parameters can be saved after power off.

Attention:

Do not reverse input voltage polarity!

Use this product to control the high-voltage electrical equipment must electrical professionals to operate，high voltage danger!

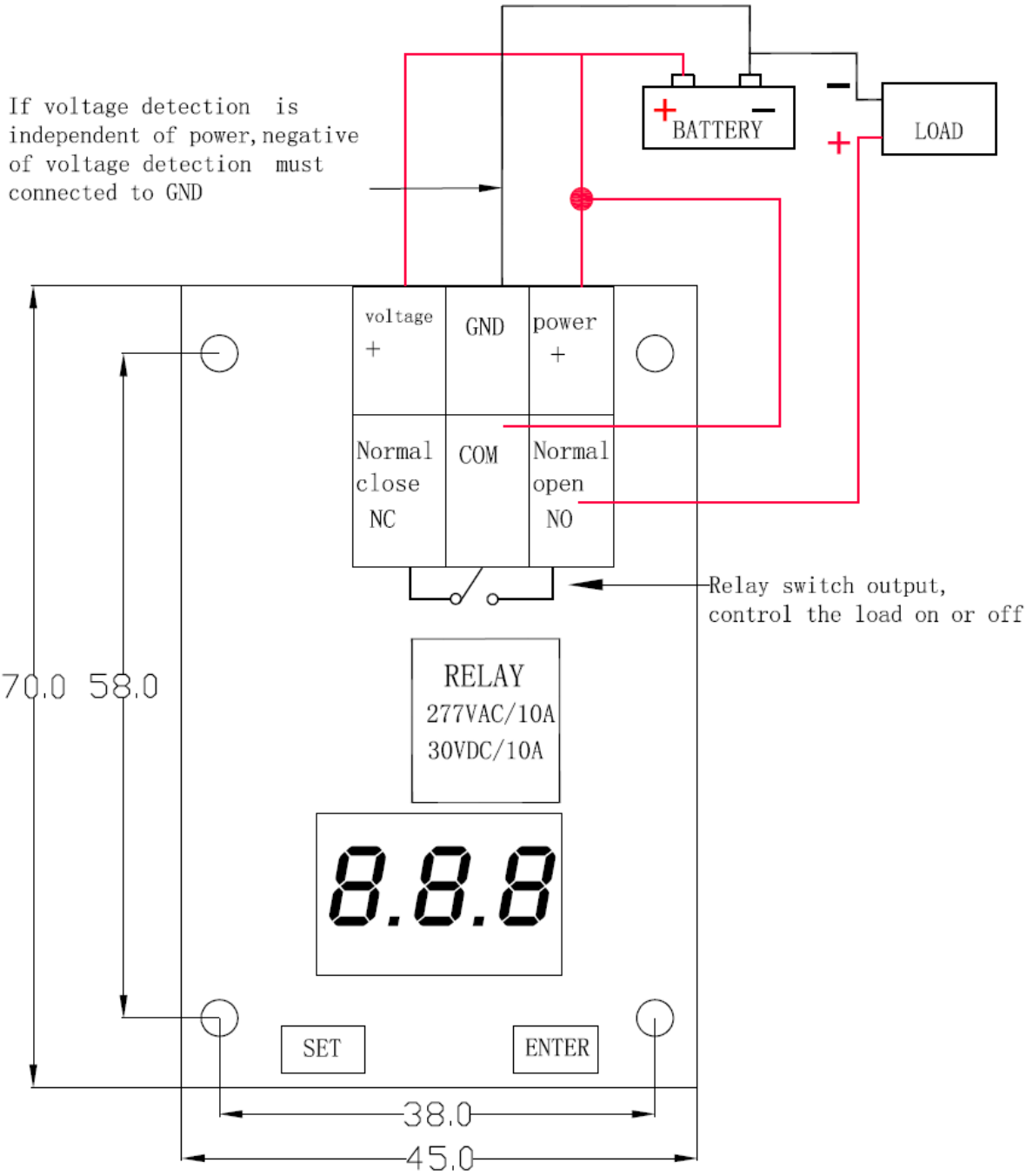

Figure 1

Relay close: NO connect to COM

Relay release: NC connect to COM

2 operating modes:

Connect to power, LED digital displays words "U-3", then enter the selection state, press the “SET” key to select "P-1~P-4" mode, press “ENTER” to enter into the corresponding mode. While any mode running, **press the “ENTER” key for 3 seconds**, system will return to the mode selection state.

Press the “SET” key to connect the power, the controller will be restored to factory settings.

2.1 Relay close delay time and display off setting (P-1)

T1(release time) T2(close time) LED off delay time

Press the “SET “key to set the three bit values, first to be set is T1 values, press the “ENTER” button to increase value number “0-9”, T1 is relay’s release time, T2 is relay’s close time, for example: T1 005, T2 000, the relay will close after delay 5 seconds, set to T1 000 T2 006, the relay will close immediately then release after 6 seconds, set to T1 005 T2 006, the relay will close after delay 5 seconds, then release after 6 seconds, cyclic run. Delay time: 999 seconds adjustable.

The display shows “d-0” means keep bright, “d-9” means display off after 9 min.

2.2 Voltage Control Timer- A (release first P-2)

Upper limit Lower limit Voltage correction Detection sensitivity ON H upper limit ON

ON L lower limit ON

Figure 3

Enter into P-2 mode, the controller detects voltage from “voltage+ GND” Interface (Figure 1) and display values (DC 0-99.9V). The relay will close or release by detect voltage exceed the upper limit or below the lower limit.

Press the “SET “button to set the three bit values, LED displays flashing, first to be set is

upper limit values , press the “SET” key three times, lower limit values to be set, press the “ENTER” key to increase value, the lower limit values can not exceed the upper limit, press the “SET” to next group values is voltage correction (±0.5V), next group values is detection sensitivity, “dL1” means detect delay 0.1s, “dL9” means detect delay 0.9s, next group values is “ON H/ON L”, set to “ON H” means the relay will close(or time relay run) when detect values exceed the upper limit until below the lower limit , set to “ON L” means the relay will close(or time relay run) when detect values below the lower limit until exceed the upper.

If the delay time in P-1 mode has been set, the time relay will act according to setting of P-1 (reference to the P-1 mode).

Short press “ENTER” button, LED displays show countdown of timer (P-1 setting).

If the pre-set upper and lower limits values set to the same, such as 13.0V, when controller detected ampere at 13.0V fluctuations may cause the relay contact frequent action, we recommend to set the values to maintain the difference between the upper and lower limits.

Note: Make sure the detection voltage interface connected reliable, loosely connect or PCB has not insulation, may lead to the induced current or voltage detection values is not accurate.

2.3 Voltage Control Timer- B (close first P-3)

The difference between “P-2” and “P-3” is the relay’s Initial state, “P-2” mode relay release first, but “P-3” mode relay close first. Setting method is the same as section 2.2.

For example:

(1) In P-1 mode , set T1 005, T2 000, then enter P-2 mode , voltage detection exceed the upper limit of the pre-set the relay will close after 5 seconds, voltage drops below the lower pre-set limit the relay release Immediately. Voltage control logic can be reversed by setting “0N H/L”. (close/release)

(2) In P-1 mode , set T1 000, T2 006, then enter P-3 mode, voltage detection below the lower pre-set limit the relay close immediately, voltage detection exceed the upper limit of the pre-set the relay will release after delay 6 seconds. Voltage control logic can be reversed by setting “0N H/L”.

2.4 Voltage range control ((P-4)

P-4 mode, the controller detects voltage and display values. Set “0N H” ,the relay will close when voltage detection exceed the upper limit and lower limit range, relay will release when voltage detection between the upper limit and lower limit range.

Set “0N L”, the relay’s control logic (close/release) can be reversed.

Setting method is the same as section 2.2.

If the delay time in P-1 mode has been set, in P-4,the relay will act according to setting of P-1 when voltage detection exceed the upper limit and lower limit range (reference to the P-1 mode),when voltage detection between the upper limit and lower limit range ,set “0N H” relay released, set “0N L” relay closed).

Example:

1. P-1 mode setting “T1 000,T2 000 ”, P-4 mode setting ON L ” ,voltage values between the upper limit and lower limit range the relay close ,relay will release when voltage detection exceed the upper limit and lower limit range.
2. P-1 mode setting “T1 005,T2 000 ”, P-4 mode setting ON H ” , relay will close after 5s when voltage detection exceed the upper limit and lower limit range, voltage values between the upper limit and lower limit range the relay release.
3. P-1 mode setting “T1 000,T2 005 ”, P-4 mode setting ON L ” , relay will release after 5s when voltage detection exceed the upper limit and lower limit range, voltage values between the upper limit and lower limit range the relay close.

Short press “ENTER” button, LED displays show countdown of timer (P-1 setting).

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