

Smartgen[®]

HAT230

Automatic Transfer Switch Control Module

OPERATING MANUAL



Smartgen Electronics

HAT230 is an **Automatic Transfer Switch Control Module**. The module features 8-Bit microprocessor control. The module is used to monitor two 3-phase AC supply. Once I# AC supply failure is detected (under voltage, over voltage, miss phase), The module Automatically transfer the switch to II# AC supply.


● FEATURES

- ★ Micro-processor based design;
- ★ Meter two 3-phase AC Voltages;
- ★ Configurable priority of supply Able to Set I# supply priority or II# supply priority or NONE supply priority;
- ★ Set AUTO or MANUAL via PUSHBOTTON mounted on the front panel;
- ★ Two isolable N designed;
- ★ 6 LEDS display the status;
- ★ Operational timers can be altered by the customer.

● SPECIFICATION


- ◇ **AC supply:** 180 to 260 V (50/60Hz) 1.5VA
- ◇ **Under voltage:** 265 ± 5 V, **Under voltage:** 172 ± 5 V.
- ◇ **3-phase AC input:** 0 to 460V 50Hz(3 phase) $U_N=400$ V
- ◇ **Relay output:**
 - Relay of close I&II: 16A 250VAC
 - Relay of start genset: 10A 250VAC
- ◇ **Delay timers:**
 - Normal delay time: 0~60s
 - Abnormal delay time: 0~60s
- ◇ **Operating Temperature Range:**
 - 20 to +70°C


● DISPLAY SYMBOL

 → Auto

 → Manual

 → delay time

 → Road I shut button


 → Road II shut button

 → Auto & Manual change button

● OPERATION

SET TIMER

- ◇ “I# AC supply normal timer” potentiometer, Set I# AC supply normal delay time;
- ◇ “II# AC supply normal timer” potentiometer, Set II# AC supply normal delay time;


- 1、 Press both the **I** and **II** button mounted on front panel, then power on, the module enter into timer configuration, while “I# power LED” ,”AUTO LED” ,”II# power LED” is lighted.
 - I# AC supply abnormal timer: Adjust ”I# AC supply normal timer” potentiometer;
 - II# AC supply abnormal timer: Adjust “II# AC supply normal timer” potentiometer;
- 2、 When completed, pressing the **II** button will save the current settings, and the “I#power LED” ,”AUTO LED” ,”II#power LED” is lighted.
- 3、 If press  button,the factory value is restored.
- 4、 Turn off the power supply.

Note:


The factory value:

I#,II#AC supply abnormal timer is 5 second.

AUTO / MANUAL SETTING:

When the module is working, pressing the  button can set the module into **automatic** or **manual** mode (AUTO LED or MANUAL LED will light). In the manual mode,press the **I** button, transfer switch to I# AC supply, press the **II** button, transfer switch to II# AC supply.

SET PRIORITY:

- 1、 While the **I** and **II** and  button is pressed at the same time,power on, the module enter into priority configuration, and the “I# power LED” ,”AUTO LED” ,”II# power LED” is lighted.
 - “**I# AC supply priority**”: pressing the **I** button, I# power LED is lighted, II# power LED is put out;
 - “**II# AC supply priority**”: again pressing the **I** button,II# power LED is lighted, I# power LED is put out;

➤ **No priority:** again pressing the **I** button, I# power LED is lighted, II# power LED is lighted.

2、 When completed, pressing the **II** button will save the current settings and the “I# power LED” , ”AUTO LED” , ”II# power LED” is lighted.

3、 Turn off the power supply.

NOTE: During the module power on, the I#/II# AC supply priority can be judged.

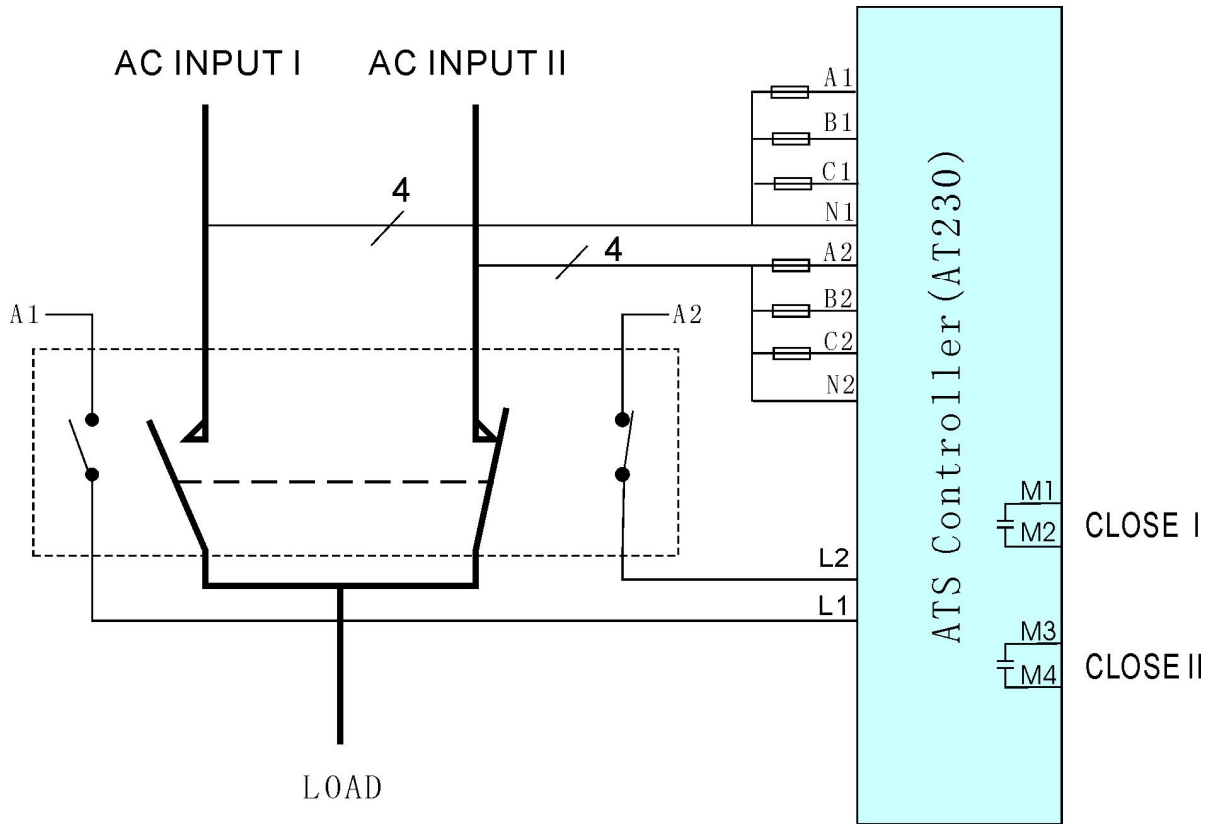
1. **I# power LED flashing for 3 times indicate I# AC supply priority.**
2. **II# power LED flashing for 3 times ndicate II# AC supply priority.**
3. **I# /II# power LED flashing for 3 times indicate No priority.**

Terminal is as follows:



- ◆ A1,B1,C1,N1 connect to I# AC supply A,B,C,N.
- ◆ A2,B2,C2,N2 connect to II# AC supply A,B,C,N.
- ◆ L1: I# AC supply closed auxiliary input(AC220V active).
- ◆ L2: II#AC supply closed auxiliary input(AC220V active).
- ◆ M1,M2: I# AC supply relay output(volts free, rated at 16A 220VAC/16A 28VDC).
- ◆ M3,M4: II# AC supply relay output(volts free, rated at 16A 220VAC/16A 28VDC).

● TYPICAL CONNECTIONS



● CASE DIMENSIONS

